

Periodical

The AMERICAN RIFLEMAN

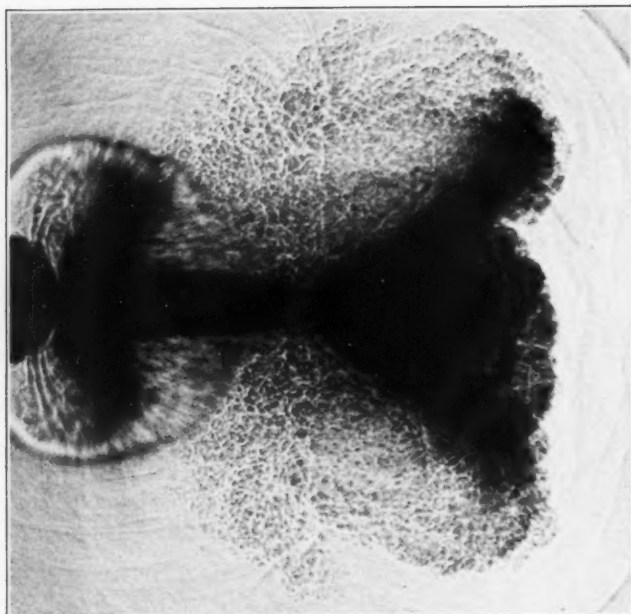
JUN 5 1928



Published By
The National Rifle Association of America
Incorporated 1871

JUNE, 1928

25 CENTS



Leaving the muzzle

THESE unretouched spark photographs, taken by Captain Quayle of the Peters Physical Laboratory, show the bullets from a .30 caliber Springfield in flight. In the first picture, just ahead of the escaping gas and air, is the sound wave; while the gases of the propelling charge are impinging on the base of the bullet and accelerating it.

In the lower picture the bullet is moving at an approximate speed of 2700 ft. per second. The V shaped lines radiating from it are sound waves which cause the sharp crack that is audible when a high velocity bullet passes close by.

PETERS AMMUNITION

PETERS leaves nothing to chance in proving ammunition performance. Every manufacturing operation is watched with the greatest care, the best of materials are selected, conscientious work goes into every detail.

Then, to be sure of accuracy and uniformity, the most exhaustive laboratory tests are applied. These pictures, taken in the millionth part of a second, are but indicative of the thoroughness of the Peters laboratory.

This scientific, exclusive method of checking by photography the actual performance of Peters Cartridges makes it possible to detect the slightest deviation from perfection and assures the shooter that the cartridges he buys under the P brand have passed the most rigid tests it is possible for any ammunition manufacturer to apply to his product.

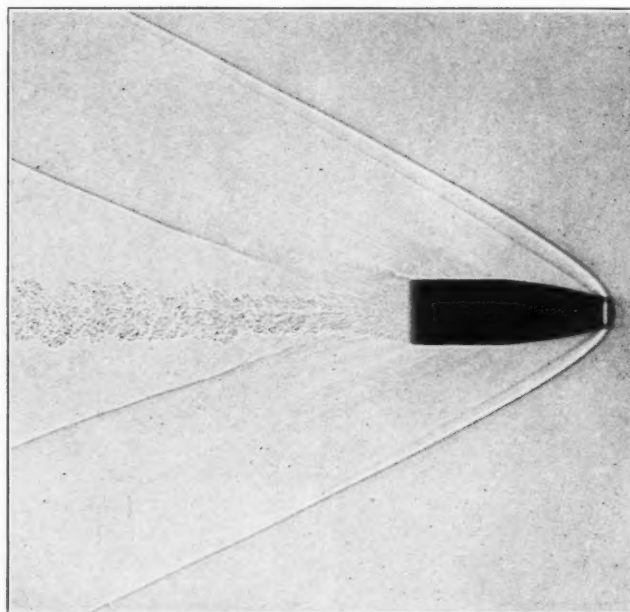
The Peters Cartridge Company

Dept. F-26

CINCINNATI, OHIO

New York

San Francisco



Speeding through space

The Common Denominator

THE rich man and the fellow not so well off sat on the train platform smoking—silently. What could a millionaire have to say to a chap who wore mail-order suits and carried his own luggage—said luggage consisting of a shabby suitcase and a long, mysterious-looking affair resembling a golf bag? So they rode and smoked in silence until the train slowed up at a small station and a hunter with his gun and dog crossed the tracks. The millionaire's ears pricked up, strangely like the hunter's hound, and his fellow-passenger leaned over the rail, calling to the hunter, "What luck?"

The man talked to them a while and when the train moved on, the millionaire said, "Do you get much hunting out here, old top?"

Our homespun hero replied, "Quite a bit, but I go in for target work myself. Got a peach of a .22 bolt action gun. Like to see it?"

"Sure would. I'm something of a small-bore nut myself."

The mysterious case was opened to reveal a splendid gun and the man with money wanted to know all about it. He was told that it was bought from the N. R. A. Service Company, an organization for the purpose of supplying the needs of shooters.

And so they chatted on for hours. The rich man forgot his dyspepsia and the poor man his taxes, in the all-absorbing subject of the rifled tube.

AS AESOP SAID, 2600 years ago: All men are equal in the eyes of the law and on the rifle range.

People have been asking us for jointed cleaning rods for ever so long. Now, here they are!

B. & M. De Luxe Cleaning Outfits

Six steel sections, one steel handle, Mull centering tip, double-slotted tip, brass brush, pushing tip, adaptor for brush, patches and oil, all in a good-looking leather cloth case, for only \$3.25, .22 or .30 caliber.

Has your club held a silver spoon match yet? If not, why not?

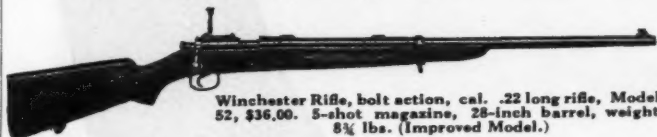


The N. R. A. seal gives added prestige to this good-looking piece of sterling silver.

\$2.25 each, \$12 per half doz.

\$20 per dozen.

Camp Perry Isn't Far Off! Buy Your Rifle Now!



Winchester Rifle, bolt action, cal. .22 long rifle, Model 52, \$36.00. 5-shot magazine, 28-inch barrel, weight 8½ lbs. (Improved Model.)



Savage Rifle, bolt action, cal. .22 long rifle, Model 1919, \$18.50. 5-shot magazine, 25-in. barrel, Weight 7 lbs.

NOTE: Kirkwood Bros., Inc., 23 Elm St., Boston, Mass., are now stocking a complete line of N. R. A. targets for the accommodation of our New England shooters. Kirkwood Brothers quote prices 10 per cent higher than those of the Service Company, but ship prepaid. Orders shipped from the Service Company are sent express collect.

N. R. A. SERVICE COMPANY, Inc.

BARR BUILDING

WASHINGTON, D. C.

The "22" Revolver

that makes $1\frac{1}{2}$ " groups
at 50 Yards!

FOR 16 YEARS the S & W 22/32 has held its title of "the finest 22 caliber revolver".

Today—due to the new high speed non-rusting ammunition for which it is now especially bored and rifled—it not only is the most accurate and finest balanced 22—but it is as clean to handle and shoot as a single shot pistol.

Here is a revolver that while so accurate that it holds the "ANY REVOLVER" record is equally suitable for the camper, fisherman or for small game hunting, and without equal for the fascinating sport of shooting at moving targets!

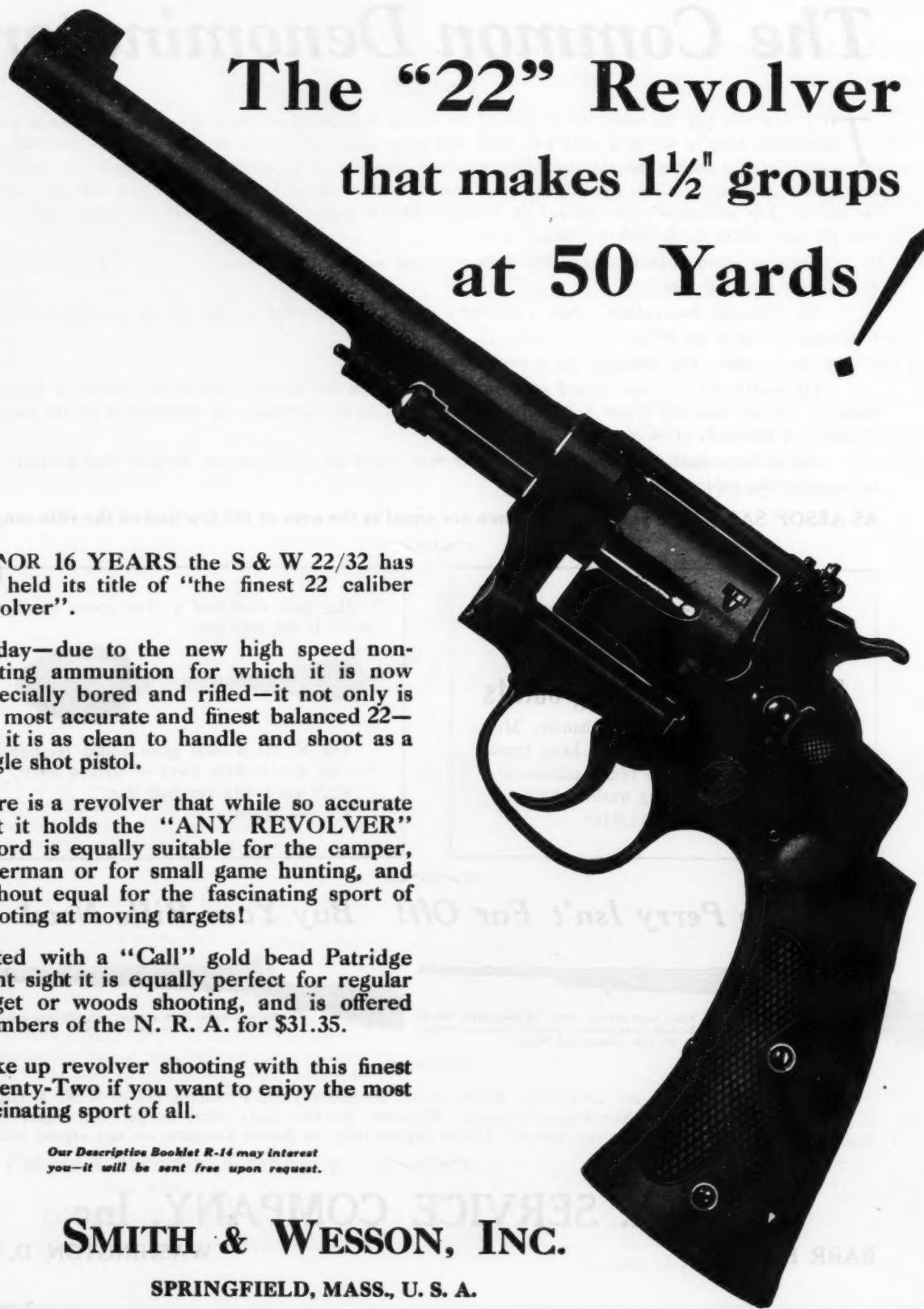
Fitted with a "Call" gold bead Patridge front sight it is equally perfect for regular target or woods shooting, and is offered members of the N. R. A. for \$31.35.

Take up revolver shooting with this finest Twenty-Two if you want to enjoy the most fascinating sport of all.

Our Descriptive Booklet R-14 may interest you—it will be sent free upon request.

SMITH & WESSON, INC.

SPRINGFIELD, MASS., U. S. A.



Important Matches are Being Won with the new Western Lubaloy Marksman .22 L.R.

THE accuracy of the WESTERN Lubaloy coated Marksman .22 Long Rifle cartridge is contributing to wins in many important small-bore matches.

This new cartridge was used by the Western Military Academy rifle team in winning the Sixth Corps Area R. O. T. C. Junior and Senior Championships, with the excellent score of 3770 x 4000. The U. S. Naval Academy small-bore rifle team used WESTERN Lubaloy coated Marksman .22's in winning the Intercollegiate-Freshman Team Match, with the high score of 2662.

Three important events in the NRA Indoor Matches were won with WESTERN Lubaloy coated Marksman cartridges:

.. The Individual Tyro Championship, 75 ft. match, won by Elmer C. Croom, Okmulgee, Oklahoma. Score: 577x600.

.. The Individual Tyro Championship, 50 ft. match, won by R. J. Taylor, Columbia, Missouri. Score: 570 x 600.

.. The Individual Intercollegiate Championship, won by C. A. Luther, Columbia, Missouri. Score: 573 x 600.

Among numerous additional wins are:

Second Corps Area Championship, won by the 101st Cavalry, New York City. Score: 2966. Fifth Corps Area Championship, won by the 10th Infantry, Ft. Thomas, Kentucky. Score: 3287.

These wins are especially impressive, for they demonstrate the degree of accuracy Western has accomplished in *Smokeless* loads.

Non-Corrosive Priming

WESTERN's new, Non-Corrosive Priming, in *Smokeless* loads, keeps the bore of your rifle bright, rustless and accurate, free from pitting and corrosion, even after thousands of rounds of shooting.

Lubaloy coated Marksman cartridges are another distinctive WESTERN development . . . the result of months of development work by the same ammunition experts who perfected the WESTERN Lubaloy Boat-tail and Lubaloy Open-point Expanding bullets and many other exclusive improvements in rifle, revolver and shotgun ammunition. Write for literature describing them.

Our technical staff are always glad to help you with your ammunition problems. They are at your service.

WESTERN CARTRIDGE COMPANY
625 Hunter Ave., East Alton, Ill.
Branch Offices: Hoboken, N. J., San Francisco, Cal.

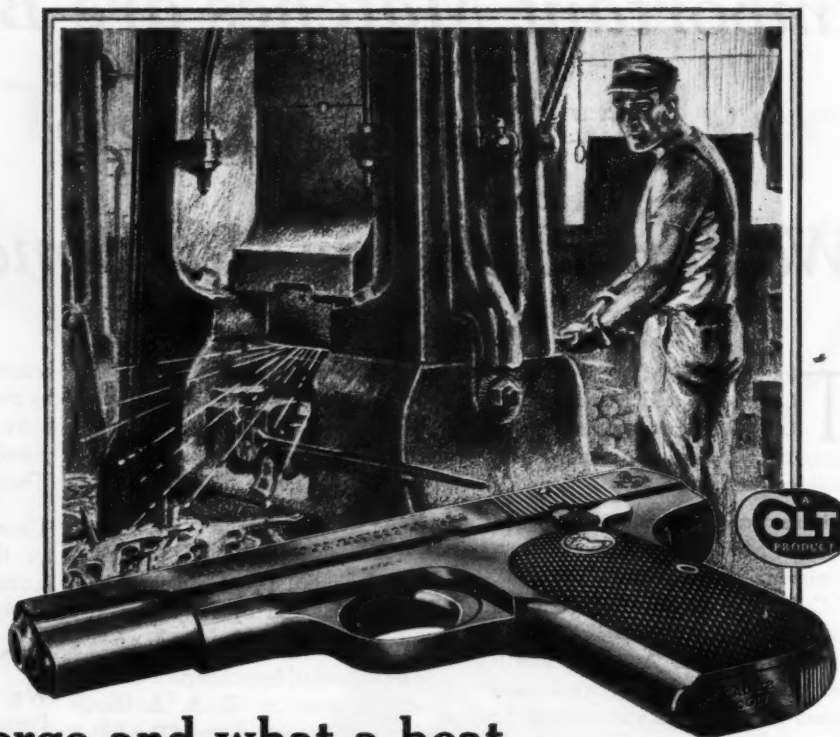


Left to right: Cadets Block, H. Kessler, Murphy, Cahill, Dobyne, Soell, Derris, W. Kessler, Igo, Sergeant A. E. Dunster, U. S. Army

Western

Lubaloy COATED .22 L. R. CARTRIDGES
(LUBRICATING ALLOY)

In Colt's forging department batteries of giant hammers rain many ton blows on the bars of glowing, red-hot steel, beating into shape and knitting firmly the fibres of the special Steels.



**"In what a forge and what a heat,
Were shaped the anchors of thy hope"**

—LONGFELLOW

NO castings are used in COLTS. When you realize that the normal load of a modern revolver develops a pressure of fifteen thousand pounds per square inch there is an added satisfaction in knowing that COLTS are made to withstand this terrific strain with an extra fifty per cent safety margin. Hence you can readily appreciate why a drop-forged COLT "stands up" and gives years of honest service. That's why a COLT costs more and is worth more.

If you would like to start or join a local Revolver Club, send us your name. Women, too, may enroll. Catalog 56 is ready. Want it.

The same exacting care, plus expert craftsmanship, extends to all COLT manufacturing processes. The production of one COLT alone requires 564 machine operations, 124 hand operations and 332 visual and gauge inspections.

Every act performed in the manufacture of every COLT firearm is on the side of safety—your safety.

COLT has but one grade of quality—the highest possible to attain.

**COLT'S PATENT FIRE ARMS MFG. CO.
HARTFORD, CONN.**

Phil. B. Bekeart Co., Pacific Coast Repr., 717 Market St., San Francisco, Calif.

COLT • The World's Right Arm

The AMERICAN RIFLEMAN

Vol. LXXVI

TABLE OF CONTENTS

No. 6

JUNE, 1928

	PAGE		PAGE
Cover Photo <i>Courtesy Canadian National Railways</i>		Executive Committee Makes Important Changes in Match Regulations	19
Dewar Candidates, Attention!	7	The Old Colt Revolving Rifles	21
By W. A. TEWES		By PAUL B. JENKINS	
The International Tryouts and Team Selection	9	N. R. A. News	24
By C. B. LISTER		N. R. A. Junior News	31
Equipping the International Team	12	Director Civilian Marksmanship	36
By MAJ. J. S. HATCHER		Dope Bag	37
Test of International Match Ammunition	15	Arms Chest	46
By MAJ. WALLACE L. CLAY, Ord. Dept.			
Determining the Length of Shot Strings	16		
By PHILIP P. QUAYLE, Peters Cartridge Co.			

Published Monthly By
THE NATIONAL RIFLE ASSOCIATION OF AMERICA
INCORPORATED 1871
Barr Building, Washington, D. C.

L. J. HATHAWAY, Editor

Obtainable by subscription, \$3.00 per year in U. S. A.; Canadian and South American, \$3.50; Foreign, \$4.25.

Copyright (1928) by the National Rifle Association of America

Entered as second-class matter, April 1, 1908, at the Post Office at Wash., D. C., under Act of Congress of March 3, 1879.

In case of change of address please give thirty days' advance notice.

OFFICERS OF THE NATIONAL RIFLE ASSOCIATION

BRIG. GEN. M. A. RECKORD
Executive Vice-President

LT. COL. L. M. RUMSEY
President

C. B. LISTER
Secretary-Treasurer

HON. BENEDICT CROWELL
First Vice-President

MAJ. GEN. F. C. AINSWORTH, U. S. A. (Retired)
Second Vice-President

COL. G. A. FRASER
Third Vice-President

EDITORIAL

Youth and the National Matches

IT IS to be regretted that such a complete program of instruction and matches for the younger shooters of this country is so poorly attended."

The quotation is from the 1927 report of Capt. T. F. Wessels, the Instructor in Charge of the Junior Rifle Corps Camp held in connection with the National Matches last year. The comment comes from a man who knows rifle training from A to Z. It indicates plainly enough the opinion of an unbiased observer as to the value of the Junior Rifle Camp at the National Matches. Captain Wessels has no interest in whether or not the Junior Camp is continued at the National Matches. It is not a part of his job to promote rifle-shooting. When a man of this type says "it is to be regretted that such a complete program of instruction and matches for the younger shooters of this country is so poorly attended," it means something.

All of us who are interested in the future of rifle-shooting in this country realize the absolute necessity of interesting and properly training the youngsters of today who must conduct the campaign for the gospel of straight shooting tomorrow. Every man who attends the National Matches this year and who has a boy of twelve or more years of age should, if possible, arrange to take that boy to Camp Perry with him to participate in the Junior School of Instruction and Matches. The boys will be quartered in a separate camp; they will be under the constant supervision of competent officers of the Regular Army and of the National Rifle Association; they will not be permitted to occupy the time or attention of their fathers, who may be busy themselves in the Senior School of Instruction or Matches. The only cost will be for transportation to and from Camp Perry and for their meals. If the youngster has a .22-caliber rifle, he should take it with him. If he doesn't have, rifles will be made available through the courtesy of the N.R.A. Service Company for issue to the boys during the School and the Matches. At the conclusion

of the Junior Camp these rifles will be available for sale to the boys at reduced prices, just the same as the National Match rifles which have been used are available to the men who have fired them.

The Junior School and Competitions will be conducted during the first week of the encampment—August 26 to September 1. Boys desiring to remain for the second week will be permitted to do so, and they may during that period compete in the Senior small-bore events, or if they so desire, in the Senior .30-caliber events. Many of the larger boys, after a week in the Junior School and Competitions will be qualified to give a good account of themselves with the Service rifle in such competitions as the Navy Match, the Individual Civilian Club Members' Match, and others of that type. The special Junior Qualification decorations will be available for immediate issue to the youngsters who qualify for them during the Junior Camp.

Place yourself for a moment in the position of the boy. Had there been an opportunity when you were fourteen or fifteen years old to go to a big semi-military camp to live in the outdoors for a week or two, to shoot to your heart's content, to receive the best instruction available in the United States, and to meet other boys from all over the United States, *would you have wanted to go?*

In this direction, too, lies an opportunity for live rifle clubs to do some real work for the cause. Whether or not any of your Senior members succeed in shooting their way into a place on your State civilian team, you can get together a fund through the medium of special benefit shoots, contributions, or in whatever way you will, and send some live, wide-awake youngster of high-school age to the Junior Rifle Corps School of Instruction and Matches.

Youth and the National Matches—what a powerful combination for the advancement of the rifle-shooting game in this country! Let's get them working together—this year. *Take or send a boy to Camp Perry in August.*

The AMERICAN RIFLEMAN

Vol. LXXVI

JUNE, 1928

No. 6

Dewar Candidates, Attention!

By W. A. Tewes

THE firing of the American Team's score in the Dewar Trophy Match against Great Britain is scheduled for Sunday, September 9, this year, at Camp Perry, Ohio.

In order to repeat the successful performances of past years in the Dewar, the co-operation of the best shooting talent in these United States is necessary.

To approach the task in a businesslike manner, the following suggestions, which have proven successful in a large experience with competitive rifle work, are submitted for the benefit of those candidates in whom conscience, regard for our national shooting prestige, and ambition to excel, prompt a desire for attaining the acme of form and condition.

Time and space being limited, whys and wherefores are omitted except incidentally in presenting the suggestions, since they carry their own obviousness as to value and are mainly intended as reminders in the assembly of a system of training.

As soon as you read this, map out your time, outside of your daily work, in the interval between now and September 9, approximately 100 days, so as to afford time for systematic daily outdoor practice. Remember, you are going to make a business of rifle-shooting for the next three months with a definite object in view. The average man will find practice hours between sunrise and breakfast and between dinner and dusk. The odds are in favor of the morning hours, from the standpoint both of atmospheric conditions and physical freshness. Lay out your range, measuring it exactly from a point 6 inches beyond your gun muzzle to the face of the target. Make the backstop safe. Purchase a supply of 50- and 100-yard targets from the National Rifle Association. The diameter of the bull's-eye for 50 yards is 2.89 inches, for 100 yards 6 inches, which includes the eight, nine and ten rings.

As in athletics, so in rifle-shooting, is performance a reflection of physical fitness. The first thing to do is to clean house physically. Cut out tobacco, tea, coffee, liquor. Drink water. A mild purgative at this time would be in order—say sodium phosphate—on three successive mornings, then stop. Pay strict attention to personal hygiene by way of the daily shower. Sanitate the eyes, nose, mouth and throat each morning by means of the eyecup and a solution of a tablespoonful of borax to a quart of water. Brush your teeth frequently; see the dentist if necessary. Respond promptly to nature's calls, and don't omit the daily dozen. Keep outdoors and walk all you can. Wear glasses if you must. Shade the eyes with the hat brim. Practice deep breathing. Amend your diet to include a goodly portion of fruits and greens, such as lettuce and spinach, to provide roughage for the proper cleansing of the bowels. Eat sparingly and slowly, and masticate thoroughly. Avoid antagonistic combinations of food. Relax in mind and body except when exercising or at shooting practice. Be calm; be confident; refuse to worry or fret. Get eight hours' sleep or such portion of it as you actually need, in properly ventilated quarters.

EDITOR'S NOTE.—Here is the very cream and essence of successful marksmanship training set forth in the simplest and clearest manner by a man who himself ranks as one of the greatest shots and greatest coaches that this country has ever produced. Study this article—make it your bible—to the end that American small-bore marksmanship may establish yet another record for the rest of the world to shoot at.

Lest these first and most important suggestions as to health rules be deemed superfluous, let it be emphasized that a groundwork of bodily health, maintained through the formation of and adherence to common-sense habits, is the basis upon which to build confidence, skill, and position control.

Concurrently with the adoption of the above program, start daily practice outdoors at 50 and 100 yards. Do not slight either distance; shoot them both at each practice. If your time is limited so that you can not fire the full quota of twenty shots at each distance,

then shoot ten or even five at each distance. Enter the results of each practice accurately in your scorebook, recording the date, time, score, zero, elevation, windage, and the data of wind, light, temperature, and other weather conditions. Study these entries carefully and deduce cause and effect, the idea being to familiarize yourself so thoroughly with the physics of the game that on the eve of a match there will be no perplexity as to the required sight readings for the prevailing weather conditions. It is not meant that you should do any bookkeeping between shots. It is enough to make your notations after each practice. Bear in mind that the Dewar conditions impose a time limit of ten minutes for each ten shots, with a penalty of ten points for each shot beyond the time limit. Therefore in your training you should endeavor to acquire a certain facility of pace and rhythm in firing. Changeable weather conditions will interfere with pace to a certain extent in the deliberation necessary to anticipate and apply corrections; but don't be poky about it. Read your conditions, apply the correction, and shoot. Better a few errors, which are generally instructive, than a distressing pokiness that surely won't earn you any consideration as acceptable team material.

If possible, always practice with a coach. Either with a practiced coach, who will contribute his specialized ability to your training, or have your shooting mate coach. He, of course, will do as well as his ability permits. Coaching is an important function and department of team organization, and the Dewar candidate should learn to depend on its help, so that under actual match conditions there will not be any feeling of strangeness or annoyance. The shooting members of a team will be so occupied with holding, sight alignment, aiming and trigger let-off that it is impossible for them to pay any strict attention to deviating influences of wind and weather conditions. At 50 yards, the effect of ordinary winds is practically negligible, and the results obtained are due to an accurate combination of gun and ammunition, together with care in holding, sighting, aiming, and squeezing trigger; but at 100 yards the same combination and care must be linked with a keyed-up alertness to anticipate and compensate for the greater deviating effect which weather variations have on the course of the bullet, due to its diminishing velocity. To slight none of the co-ordination required in holding, pointing, and pulling the gun, and to launch all the shots infallibly at the propitious moment, is not within the power of any

individual to control continuously. Therefore, the coach is a necessary adjunct to your training for a team candidacy.

As early as possible put your gun and ammunition on the machine rest and learn their grouping characteristics. If the combination will not hold a 1-inch circle at 50 yards or a 2-inch circle at 100 yards, in quiet weather, try different makes of ammunition. When you get good groups, get a case of that lot of cartridges. If the gun will not shoot up to the above standard for accuracy with any ammunition, and the chambering and breeching check up O. K., then discard the barrel and get a new one. A good chambering job is a close fit, and the fired shells will come out bright and clean. A proper breeching-up job calls for close contact at all points of the faces of the barrel and breech block, and the face of the breech block must be absolutely square with the axis of the bore. The shape of the firing-pin point, its length, and the weight and location of its blow have their bearing, too, on accuracy. Theoretically, the contour of the point should approximate a shallow V with a rounded point, like the dulled point of a drill, its length only sufficient to close the recess inside the rim of the shell. The center of its indent should collimate with the body wall of the shell, the area of the point or indent should not exceed that of a 1/16-inch circle, and the percussion should be smart enough to give instantaneous ignition.

Having checked up the mechanical performance of your gun and ammunition, inspect your sights and see that they are firmly located, without any loose play. The adjustments and set screws should move rather stiffly without any tendency to creep or settle. If you will slightly rust-pit your sights with sal ammoniac they will take and hold a dense black from your acetylene torch. This aids definition and avoids reflection. Of the front sights in general use, the four principal ones are the aperture, metallic cross hairs, post and bead. In still conditions the first two are very accurate, allowing a symmetrical aiming image and are easy on the eye. The other two are better in windy conditions, where it is necessary to English the aim for fluctuations in wind strength. The preference should be given to the post, because with the bead, in englishing for side winds, the tendency is to follow the contour of the bull, and thus add elevation unwittingly to your lateral correction.

The trigger pull should be clean and sharp. Your stock should fit so that when you apply your face to the comb your eye will be directly in line with the sights. A stock length of 14 inches will fit more men than any other dimension. Do not run to the foolish extreme of a 16-inch stock and a long heavy barrel, putting all the weight out where you have least control, besides added wind surface. The idea in prone shooting is for man and gun to be close-coupled, so to speak; not too long a stock nor too long and heavy a barrel. This

with a comfortably long left-hand reach makes for better control.

Your shooting coat should have the elbows well padded and be of such a fit that when in position it spans comfortably across the shoulder blades. The sling should be shortened as much as you need and placed midway of the upper arm. Thus geared, you should feel comfortably braced and snugly taut when in firing position. The butt should rest against the upper part of the chest muscle rather than against the shoulder muscle. It will rest there more firmly without the tendency to roll.

The right-hand grip should be with the thumb around the stock rather than along the right side of the stock. It allows the forefinger to act independently without communicating its movement to the rest of the hand and deranging the aim at the critical moment.

The legs should be well spread, the inside of the feet flat on the ground. This enables you to hug the ground closer, tends to steadiness, and is a visible evidence of good form.

Inspect your ammunition and weed out all bruised and deformed cartridges for use as fouling shots. Fire each shot as if it were in the match. Steel yourself to launch the shot only when the aim is exactly as you want it. Persist in this and allow no perfunctory sloppiness to enter your practice work.

In the making of high scores there are three factors—the gun, the ammunition, and the man. Of these the gun is the most constant factor, and the ammunition is the next most constant factor, while the continual variant of the trio is the man. To improve the man is the chief object of any system of training—to reduce his variations and raise his average of performance to a higher standard. To accomplish this we summarize as follows: A foundation of health through proper habits. All the outdoor exercise possible. Strict sanitation and hygiene. Regular daily practice to acquire the muscular habituation necessary for control and confidence. A sufficiently long training period to reap the benefits of health habits. Experiment with gun, ammunition, sights and other equipment toward a final selection. Improve your skill, and land at Perry trained, fit and ready for your best effort.

The regulations governing the Dewar competition are given below for your information:

LORD DEWAR INTERNATIONAL TROPHY

(Holder: United States of America)

In addition to the Challenge Trophy, silver medals or silk badges will be awarded to each member of the winning team and bronze medals or silk badges to each member of the second team.

To be competed for by teams of 20 competitors selected respectively by the Society of Miniature Rifle Clubs for Great Britain; the National Rifle Association of America for America; the Miniature Rifle Clubs Union of New South Wales for Australia;

the National Rifle Association of Canada for Canada, and in New Zealand, India and South Africa by Associations approved by the S. M. R. C.

Conditions.—Open to teams representing Great Britain, United States of America, Canada, Australia, New Zealand, South Africa and India. The shooting of the whole of each team must take place on the same range in their respective countries, and be completed on the same day. The shooting of each team must be witnessed by a representative appointed by one of the above mentioned associations. The cards for the competition will be issued by the Society of Miniature Rifle Clubs, and a certificate must be signed by the witnesses, stating that they had personally seen the whole of the conditions carried out.

Each country must give notice to the Secretary S. M. R. C. of the date they intend shooting their cards. Unless this date is strictly adhered to, the team will be disqualified. Notices of shooting must reach the S. M. R. C. at least one calendar month before the shoot.

Distance.—50 and 100 yards out-of-doors. The range to be measured from the edge of the firing point nearest the cards.

Number of shots.—40 deliberate per competitor. 10 each at two S. M. R. C., 50 yards Match cards, and 10 each at two S. M. R. C. 100 yards Match cards. In the case of the 50 yards Match card two targets are printed on the same card, and five shots should be fired at each.

Hits off the rings will not count.

A Time-limit of ten minutes is allowed for each series of ten shots. A penalty of 10 points will be deducted for each shot fired after the word "Cease" has been given at the expiration of Time-limit.

Rifles.—Any small-bore rifle not exceeding .22 caliber and barrel not exceeding 30 inches in length.

Slings may be used.

Sights.—Any sights of any pattern fixed or adjustable both vertically and laterally. A single lens or optical sight only will be allowed to be attached to the aperture rear sight on the rifle as a substitute for the shooter's spectacles, but no combination lenses, telescopic sights, or levels are permitted.

Position.—Prone. No artificial rests of any kind are permitted. When shooting takes place the forearm must be clear of the ground.

Triggers.—The trigger pull must not be less than 3 lb. Previous to the shooting the witness must test each of the competitors' rifles with a dead weight trigger tester of not less than 3 lbs.

Coaching and spotting allowed.

Practice allowed before shooting, also between the 10 shot strings if required. Whilst competitors are shooting their Match cards no practice cards will be allowed on the butt.

Where not otherwise provided for the shooting regulations of the S. M. R. C. will govern the contest.

(Continued on Page 11)

The International Tryouts and Team Selection

By C. B. Lister

ANY DAY now you can hear the dull thud which indicates a shot from the boiler house on the International Range at Quantico. The men on whom the United States is depending to put up the stiffest fight yet staged for the possession of the Argentine Cup are in the midst of the six weeks' training as a team which started immediately after the conclusion of the final tryouts. Based on performance records in the final tryout and on the known ability of the riflemen, this year's International Free Rifle Team is one of the most promising aggregations yet sent abroad. Every man on the team, with one exception, is a veteran of one or more International competitions. That one exception, Corpl. Paul E. Woods, of the Marine Corps, is well acquainted with match firing, having been a member of the Marine Corps National Match Team for several years.

Preliminary tryouts were held at one or more points in each of the nine corps areas last fall. In addition, men who were unable to attend one of their corps area tryouts were permitted to fire under proper supervision on their club range. One hundred and seventy-seven men completed the necessary preliminary tryout scores. Many more fired in the tryouts, but discovered their inability to stand the pace and did not complete firing. In addition, the Chief of Infantry had designated 3 men to participate in the final tryouts, the Chief of Cavalry had designated 2, the Navy 1, the Chief of Engineers 1, and the Marines 13.

The three high men in each corps area for whom medals were provided by the National Rifle Association were as follows:

CORPS AREA MEDAL WINNERS

1928 INTERNATIONAL FREE-RIFLE TRYOUTS

First Corps Area

1. Robert M. Horbeck, Cambridge, Mass. 438
2. Sgt. Emil J. Koby, Ft. Adams, R. I. 430
3. Elliott, Cambridge, Mass. 340

Second Corps Area

1. Capt. Jno. H. Knuebel, Ft. Jay, N. Y. 491
 2. Edward K. Williams, Buffalo, N. Y. 373
- (Only 2 candidates fired)

Third Corps Area

1. R. Loder, Erie, Pa. 450
2. Charles H. Johnson, Philadelphia, Pa. 450
3. W. L. Wilson, Erie, Pa. 441

Fourth Corps Area

1. Sgt. Frank Soergor, Ft. Benning, Ga. 471
2. Sgt. Joe B. Sharp, Ft. Screven, Ga. 449
3. Cpl. James B. Ellis, Ft. Screven, Ga. 416

Fifth Corps Area

1. Capt. H. A. Obenauf, Culver, Ind. 454
2. Hervey Lovell, Indianapolis, Ind. 405
3. Capt. Harry M. Turpin, Newcastle, Ind. 402

Sixth Corps Area

1. S. D. Monahan, Chicago, Ill. 484
2. C. E. Nordhus, Highland Park, Ill. 475
3. F. Johanson, Joliet, Ill. 459

Seventh Corps Area

1. John P. Becker, Dundas, Minn. 512
2. E. O. Swanson, Minneapolis, Minn. 479
3. Cpl. Wm. O. Gower, Ft. Omaha, Nebr. 373

the day of the tryout, kind of equipment used by the competitor, etc., and the following civilians were invited to participate in the final tryouts at the expense of the National Rifle Association:

W. L. Bruce, Cheyenne, Wyo.
M. C. Dolson, San Leandro, Calif.
A. P. Williams, Philadelphia, Pa.
J. B. Grier, Wilmington, Del.
C. E. Nordhus, Highland Park, Ill.
H. F. Graves, Duluth, Minn.
M. W. Dinwiddie, Washington, D. C.
Lawrence Nuesslein, Washington, D. C.
G. M. Upshaw, Whittier, Calif.

When refusals were received from Dolson, Nordhus, and Graves, Mr. J. P. Becker, of Dundas, Minn., and Mr. S. D. Monahan, of Chicago, Ill., were invited to participate, and when they refused, Mr. Henry C. Wright, of Fresno, Calif., and Mr. Waldo Haack, of Stockton, Calif., were asked to attend the tryouts. It is probably well to state that the reason for the refusals by these men was the fact that if they had made the team they would have been required to remain at Quantico until the team sailed, which would have meant a total of nearly three months away from their work.

When the squad finally assembled at Quantico, ready for the first day of the

tryouts, Monday, April 23, there were present:

Lieut. Paul M. Martin, Cavalry.
Lawrence Nuesslein, civilian, Washington.

D. C.

Corpl. Paul E. Woods, U. S. M. C.
Lieut. Sidney R. Hinds, Infantry.
Gunnery Sergt. Morris Fisher, U. S. M. C.
William L. Bruce, civilian, Cheyenne, Wyo.
M. W. Dinwiddie, civilian, University of Virginia.
Capt. Lloyd S. Spooner, Infantry.
Capt. John H. Knuebel, Infantry.
Sergt. R. F. Seitzinger, U. S. M. C.
Sergt. J. R. Tucker, U. S. M. C.
Capt. W. A. Wood, Jr., Engineers.
Sergt. Nolan Tillman, U. S. M. C.
Sergt. Joseph F. Hankins, U. S. M. C.



THE 1928 INTERNATIONAL TEAM

Left to right, back row: Col. D. C. McDougal, team captain, Hinds, Nuesslein, Woods, Maj. Harry B. Smith, team coach. Front row: Martin, Bruce, Fisher, Dinwiddie

Eighth Corps Area

1. Cecil Howard, Denver, Colo. 445
2. Lt. D. J. Ellinger, Ft. Sam Houston, Tex. 441
3. Sgt. A. F. Sarman, Ft. D. A. Russell, Wyo. 441

Ninth Corps Area

1. M. C. Dolson, San Leandro, Calif. 520
2. H. C. Wright, Fresno, Calif. 508
3. W. O. Haack, Stockton, Calif. 504

When it came to the matter of selecting the men to participate in the final tryouts at Quantico, it was of course not feasible to select from the above list of medal winners, as the men whose scores were high enough to win a medal in their corps area were sometimes not as high as those who failed to win medals in other corps areas.

With all of the scores in, a careful study was made of them, taking into consideration such factors as local weather conditions on

W. C. Haack, civilian, Stockton, Calif.
David S. McDougal, civilian, Washington, D. C.
Gunnery Sergt. B. G. Betke, U. S. M. C.
Perry Rutherford, civilian, Washington, D. C.
Henry C. Wright, civilian, Fresno, Calif.
Sergt. Frank Ioerger, Infantry.
Gunner's Mate (1st class) E. S. Peterson, U. S. N.
Frank T. Parsons, civilian, Washington, D. C.

John B. Grier, civilian, Wilmington, Del.
Capt. Roy P. Gerfen, Cavalry.
Sergt. A. J. V. Roberts, U. S. M. C.
G. M. Upshaw, civilian, Whittier, Calif.
James W. Walker, civilian, Baltimore, Md.
Firing conditions on the first day were very poor. The light was dull and changing, it rained most of the time, and it was cold. Portable oil stoves were provided by the Marines in the various firing booths, not with any idea that they would warm the shooter, but in order to enable him to warm his trigger hand after each shot so that he might be able to feel the trigger.

The first day's firing found Lieutenant Martin, shooting his own Martini, out in front with a score of 521. He was still in front at the end of the week with a grand total of 2,581 for five days' firing, although he failed to finish any better than sixth in the day's standing on Thursday and Friday. The same miserable firing conditions continued through practically the entire week. Old-timers who have seen Perry after a few days of rainy weather in the fall and who think they know something about gloomy conditions would learn what gloom really is if they were to spend a week through a spring rain at Quantico, when the post is stripped of all troops except those which are absolutely necessary to keep it operating, and when the temperature hovers down around 50 to 60 and the scores are consistently low day after day because numbed fingers lack the ability to "touch her off" at the right time.

However, like most International tryout groups, the squad at Quantico this year were, generally speaking, a good-natured, congenial crowd, and they made the best of things as they found them. The firing booths were well built of timber and concrete. Each was provided with a table, chair and bench, in addition to the oil stove; the roofs did not leak, and the chow was good.

With firing completed and the scores all in on Thursday, April 26, with only one more day's firing to be done, it was evident that there would be quite an interesting race for at least four of the seven places on the team. At this stage of the game Martin led the field with an aggregate of 2,069, Nuesslein was runner-up with 2,037, and Corporal Woods third with 2,033. From here there was an 18-point drop to Fisher, with a total of 2,015, while only 18 points separated Fisher and Spooner, of the Infantry, who at that time was in eighth place, with a score of 1,997. Sergeant Seitzinger, of the Marines, was ninth, with 1,987; Sergeant Tucker, of

DAILY SCORES OF U. S. INTERNATIONAL FREE RIFLE TEAM TRYOUTS—1928

Candidate	Date, April	Standing	Kneeling	Prone	Daily total	Total to date	Daily standing	Individual standing to date
1. Martin, P. M., U. S. Army, 1st lieutenant.	23	252	175	94	521	.....	1	1
	24	247	180	92	519	1,040	2	1
	25	256	178	93	527	1,567	1	1
	26	255	172	95	502	2,069	6	1
	27	238	179	95	512	2,581	6	1
2. Nuesslein, L., Washington, D. C., civilian.	23	241	173	91	505	.....	6	4
	24	242	169	89	500	1,005	6	4
	25	259	165	94	518	1,523	2	3
	26	259	165	90	514	2,037	1	2
	27	254	173	90	517	2,554	3	2
3. Woods, P. E., cpl., U. S. M. C.	23	241	173	90	504	.....	7	3
	24	256	165	89	510	1,014	3	3
	25	253	170	89	512	1,526	3	2
	26	239	178	90	507	2,033	4	3
	27	241	170	93	504	2,537	12	3
4. Hinds, S. R., 1st lieutenant, U. S. Army.	23	221	176	96	493	.....	11	7
	24	239	182	87	508	1,001	4	7
	25	245	173	88	506	1,507	4	5
	26	235	169	91	495	2,002	9	7
	27	245	186	98	529	2,531	1	4
5. Fisher, M., gy. sgt., U. S. M. C.	23	237	183	94	514	.....	2	..
	24	248	185	91	524	1,038	1	2
	25	229	167	88	484	1,522	15	4
	26	230	174	89	493	2,015	11	4
	27	239	184	93	516	2,531	4	5
6. Bruce, W. L., Wyoming, civilian.	23	233	178	90	501	.....	9	..
	24	229	179	92	500	1,001	7	8
	25	244	172	86	502	1,503	6	6
	26	240	180	89	509	2,012	2	5
	27	239	179	93	511	2,523	9	6
7. Dinwiddie, M. W., Virginia, civilian.	23	240	177	90	507	.....	4	..
	24	236	172	94	497	1,004	10	5
	25	236	170	92	498	1,502	7	7
	26	229	182	89	500	2,002	7	6
	27	249	177	86	512	2,514	5	7
8. Spooner, L. S., capt., U. S. Army.	23	245	166	91	502	.....	8	..
	24	228	179	90	497	999	11	9
	25	234	165	91	490	1,489	11	9
	26	250	165	93	508	1,997	3	8
	27	244	171	96	511	2,508	7	8
9. Knuebel, J. S., capt. U. S. Army.	23	228	170	92	490	.....	14	10
	24	236	171	92	499	989	9	10
	25	245	173	86	504	1,493	5	8
	26	216	175	87	478	1,971	16	11
	27	255	176	92	523	2,494	2	9
10. Seitzinger, R., cpl., U. S. M. C.	23	241	174	91	506	.....	5	..
	24	234	174	88	496	1,002	12	6
	25	217	175	90	482	1,484	18	10
	26	238	172	93	503	1,987	5	9
	27	230	185	91	506	2,493	10	10
11. Tucker, J. R., sgt., U. S. M. C.	23	243	179	88	510	.....	3	..
	24	218	170	91	479	989	20	11
	25	231	168	87	486	1,475	13	11
	26	246	162	91	499	1,974	8	10
	27	230	181	95	506	2,480	11	11
12. Wood, W. A., Jr., capt., U. S. Army.	23	234	163	93	490	.....	12	..
	24	245	161	82	488	978	16	14
	25	236	169	88	493	1,471	9	12
	26	229	174	92	495	1,966	10	12
	27	235	166	93	494	2,460	14	12
13. Tillman, N., gy. sgt., U. S. M. C.	23	221	167	83	471	.....	19	..
	24	218	178	93	489	960	15	17
	25	234	173	86	493	1,453	10	15
	26	222	176	88	486	1,939	14	15
	27	236	168	91	495	2,434	13	13
14. Hankins, J. F., sgt., U. S. M. C.	23	227	174	89	490	.....	13	..
	24	220	178	91	489	979	14	13
	25	216	166	88	470	1,449	21	16
	26	234	167	91	492	1,941	12	13
	27	230	172	91	493	2,434	15	14
15. Haack, W., California, civilian.	23	231	178	85	494	.....	10	..
	24	218	174	91	481	975	19	15
	25	238	171	85	494	1,469	8	13
	26	220	162	90	472	1,941	17	14
	27	228	165	91	484	2,425	17	15
16. McDougal, D. S., Wash., D. C., civilian.	23	219	148	90	457	.....	..	..
	24	235	173	94	502	959	5	18
	25	226	152	87	465	1,424	23	21
	26	224	178	86	488	1,912	13	17
	27	239	181	91	511	2,423	8	16
17. Betke, B. G., gy. sgt., U. S. M. C.	23	203	174	92	469	.....	22	..
	24	222	171	95	488	957	17	20
	25	211	168	95	474	1,431	19	20
	26	209	169	93	471	1,902	18	19
	27	238	159	95	492	2,394	16	17
18. Rutherford, P., Wash., D. C., civilian.	23	203	168	84	455	.....	26	..
	24	161	153	80	394	840	27	28
	25	182	150	85	417	1,256	25	24
	26	184	139	84	407	1,673	22	22
	27	175	148	79	402	2,075	..	..
DISCONTINUED								
F. T. Parsons, unattached, civilian.	23	220	171	92	483	.....	15	..
	24	249	166	84	499	982	8	12
	25	230	164	91	485	1,467	14	14
Ioerger, F., sgt., U. S. Army.	23	208	169	93	470	.....	21	..
	24	231	170	88	489	959	12	19
	25	227	166	91	484	1,443	16	17
	26	208	170	80	458	1,901	20	18
Peterson, E. S., U. S. Navy.	23	222	165	85	482	.....	16	..
	24	221	168	92	481	963	18	16
	25	215	162	94	471	1,434	20	19
	26	193	166	92	451	1,885	21	20
Wright, H. C., California, civilian.	23	216	172	85	494	.....	10	..
	24	218	134	93	445	916	24	24
	25	239	167	82	488	1,404	12	23
	26	216	156	95	467	1,871	19	21
Garfan, R. P., capt., U. S. Army. (Sick)	23	201	137	93	431	.....	28	..
	24	168	172	79	419	850	..	27
Grier, J. D., Delaware, civilian.	23	221	170	89	480	.....	17	..
	24	224	158	91	473	953	22	22
	25	226	152	87	465	1,418	22	22

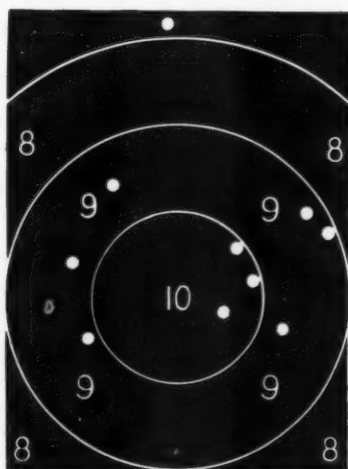
Candidate	Date, April	Standing	Kneeling	Prone	Daily total	Total to date	Daily standing	Individual standing to date
Humphrey, M. B., major, U. S. M. C.	23	208	164	91	463	....	24	..
	24	194	147	85	426	894	26	..
	25	190	159	84	433	1,322	24	..
	26	179	...	..	333	1,655	23	..
Walker, J. W., Maryland, civilian.	23							
ELIMINATED								
Russell, E., cpl., U. S. M. C.	23	216	157	91	464	....	23	..
	24	219	150	91	470	934	23	..
Roberts, A. J. V., agt., U. S. M. C.	23	193	174	86	453	....	27	..
	24	187	161	93	441	894	25	25
DISCONTINUED								
Upshaw, G. M., California, civilian.	23	239	152	88	479	....	18	..
	24	211	172	94	477	956	21	21
	25	233	161	88	482	1,438	17	18
	26	224	168	86	478	1,916	15	16

the Marines, tenth with 1,974; and Captain Knuebel, of the Infantry, eleventh with 1,971. Under the prevailing weather conditions it was an admitted possibility that any of these men might displace Fisher, Bruce, Dinwiddie or Hinds, who at that time were fourth, fifth, sixth and seventh, respectively. On the last day Martin continued to coast along, turning in a total for the day of 512, which gave him a grand total over the course of 2,581. Nuesslein also did an average day's work, hanging up a total of 517 for a grand aggregate of 2,554. Nuesslein was third high for the day, and Martin sixth. Corporal Woods, the third of the three leaders, turned in a 504 to finish twelfth for the day and to give him a final total of 2,537. Lieutenant Hinds furnished the sensation of the day with a score of 98 in the prone position and a total for the day of 529. This total gave him a grand aggregate of 2,531, pulling him up to fourth place, only six points behind Woods. Sergeant Fisher, of the Marines, hung up 516 for his day's work, which left him with an aggregate of 2,531 and fifth place on the team. Bruce showed the stuff that was in him by hanging up an 84 and an 86 standing after getting off an initial string which totaled only 69. An 88 and 91 kneeling and a 93 prone gave him a total of 511 for the day, an aggregate of 2,523, and sixth place on the team. Dinwiddie, the lad who acquired the reputation as the original hard-luck boy in 1924, when he hung up a new Olympic record offhand at 50 meters with the .22, only to have it surpassed in the last half hour of the match, stuck to his guns at Quantico this year, and by registering 512 on the last day, assured himself of seventh place on the team, with an aggregate of 2,514. A composite table covering the entire tryout is given below.

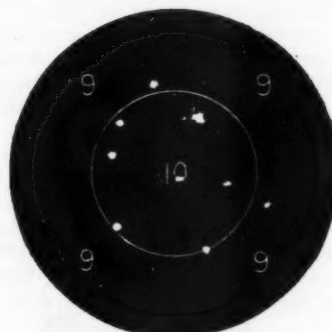
Realizing that during the six weeks' team-training period there was a possibility that some of the men on the team squad might be taken sick or be injured or called home, extra precautions are being taken this year by holding at Quantico Captain Spooner, who finished eighth, Captain Knuebel, who finished ninth, and Sergeants Seitzinger and Tucker, of the Marines, who finished tenth and eleventh, respectively. These men are receiving the same practice and team training as the regular team squad.

According to reports coming up from Quantico, the new Martini actions and

Springfield barrels, plus the 1928 International Match ammunition, are giving excellent results in the hands of the squad. Already



Nuesslein's 91 Offhand in the Tryouts



Hind's Prone 98

Dinwiddie has at least one 96 offhand to his credit, and other members of the squad are shooting better scores offhand and kneeling than they had ever thought possible. It seems to be quite possible that these men, trained on the slower Springfield action, have acquired the habit of holding for every point they get to such an extent that when equipped with these faster-action Martinis they may be able to completely surprise the Swiss and everyone else with the size of the offhand and kneeling scores which they will make at Amsterdam this year. Of course, it is too early to make any forecasts or predictions, but it can be definitely stated

that as a result of the extensive tryouts, the intensive preparation in the matter of equipment, the careful and extended team training at Quantico, and the wonderfully accurate qualities of the high-speed ammunition with which this year's team is equipped, the 1928 aggregation have the best chance of bringing the Argentine Cup back to this country of any organization that we have sent to Europe since the Swiss learned to use the sling.

The team will sail from New York on June 23 on the Holland-American liner *Rotterdam*. The matches will be fired at Amsterdam, Holland, about the middle of July. The men will probably be back in the United States not later than August 10, in ample time to go to the National Matches and show the boys how they did it, provided they are able to get the time to go to the National Matches after having spent something like three months in preparation for and firing the Free-Rifle Matches.

The generous action of Mr. William Randolph Hearst, the publisher, in agreeing to underwrite the expenses of the civilian members of the team is the first time in many years that a public-spirited American sportsman has come forward in so free-hearted a manner on behalf of the rifle-shooting fraternity.

The excellent representation of civilian riflemen who competed in the final tryouts at Quantico and the proportion of three civilians out of seventeen members on the International Team were both made possible only by this very material interest of Mr. Hearst. The civilian riflemen in this country must gain a new appreciation of his real, unselfish interest.

Pictures and write-ups relative to this year's International Team have been and are being supplied to all Hearst newspapers. Should you have a local Hearst paper which is not carrying this material, if you will take the matter up with the editor and tell him of Mr. Hearst's personal interest in the team, you will be able to get this year, probably for the first time, news accounts of what is going on both during the team-training period and during the progress of the matches in Europe.

Dewar Candidates, Attention!

(Continued from Page 8)

The British team will shoot their cards on the day and at the time to be fixed by the Committee.

Entries must be forwarded to the Secretary, Society of Miniature Rifle Clubs, Arundel House, Arundel Street, Strand, London, W. C. 2, on or before Wednesday, May 2, 1928.

The cards of the British, American, and Canadian teams must be shot on a day to be notified, as in paragraph 4 above, between June 1 and September 30, 1928, and those of the Australian and New Zealand teams between February 1 and July 31, 1928.



The Martini Rifle as purchased for the 1928 International Rifle Team

Equipping the International Rifle Team

By Maj. J. S. Hatcher

IN 1913, THE International Matches were held at Camp Perry, and our team was defeated by the Swiss. At that match we used Winchester single-shot rifles of the Schuetzen type. This is the only time we participated in these matches before the World War, and during the war all match shooting was suspended. International shooting contests were resumed in 1920, when America sent to the Olympics at Antwerp a team armed with ordinary service rifles, which was successful in winning the matches that were held at that place. These Olympic Matches were not, however, strictly speaking, part of the regular International Match series. The first of this series after the war were held at Lyons in 1921.

The team that went to the matches in Lyons used an ordinary Springfield rifle, equipped with what was known at that time as a "pressure barrel," 24 inches long. These pressure barrels were nothing more or less than very heavy barrels, about 1 1/2 inches in diameter.

The next year the men that appeared at Quantico for the tryouts for the team which was to compete at Milan had various kinds of rifles. There was one man who used an ordinary Springfield. There was another—Commander Osborne—who used a 24-inch heavy-barreled Springfield rifle like the one used the year before. Larry Nuesslein had a 30-inch heavy-barreled Springfield rifle. Of course, it was found necessary to have a palm rest, and various kinds of palm rests were used. Commander Osborne had a cork ball fitted under the magazine floor plate of his rifle.

About this time there was much discussion of the matter of proper equipment for the International Rifle Team.

The team was successful at Milan, as it had been at Lyons the year before.

In 1923 the match was held at Camp Perry, and in 1924 it was held at Rheims in conjunction with the Olympic games. That year the entire team was equipped with Springfield rifles having heavy tapered barrels 30 inches long, equipped with a cork palm rest similar to that used by Commander Osborne, and with lightened firing pins and with set triggers bought in Germany.

The team again won the International Matches, and this time there was much

criticism on the part of the Swiss, of our superior equipment. There was some talk that our victory was due to superior equipment and not to superior shooting. The three successive defeats that they had received at our hands succeeded in stinging the Swiss into vigorous action. They learned to use the sling as we used it, and adopted an aperture rear sight almost exactly like our Lyman, and practiced up until they were pretty good in the prone position, which was our strong point and had been their weak point heretofore.

In 1925 our team, equipped with special match Springfields with 30-inch heavy barrels, palm rests, adjustable sling swivels, set triggers, and special butt plates, was defeated by the Swiss. Immediately the talk was reversed. Our team at once began to say that it was defeated because of the Swiss having superior equipment. On the several trips that our team had made to Europe for these matches it had seen much special and very mysterious looking equipment, such as rifles with adjustable jointed stocks for altering the drop (Fig. 1); special adjustable butt plates of several patterns (Fig. 2); Martini rifles with weirdly carved stocks having cheek rests and thumb rests and a specially shaped trigger guard with a place for every finger, and especially designed to facilitate the use of set triggers (Fig. 3); fluted and ribbed barrels (Fig. 4); super-sensitive four-lever set triggers, etc.

Some of our people (or perhaps all of them) tried these rifles, and found that when they were put to the shoulder there was something very different in the feel and balance of them from that of our Springfields. These rifles seem to just naturally

fall into place for the standing position. The prong on the butt plate fits around the shoulder, the cheek nestles down into the hollow of the cheek piece, and the fingers just naturally fit into the various grooves and notches cut for them in the trigger guard. In fact, the gun seems to point and hold itself. It seems to be just part of the shooter. All strain and uneasy feeling seems to be removed when one of these guns is being used.

Our Springfield heavy rifles are well adapted to prone work, but they are not as easy to shoot in the standing and kneeling positions as these Swiss productions. Naturally our shooters thought that they could have done better if they had been equipped with such rifles. They said that our guns didn't balance as well as the Swiss. They thought the balances of our guns could be improved by using 28-inch barrels instead of 30-inch. They also said that the Swiss set triggers were far more sensitive and uniform in their action than ours, and that this feature alone meant many points in a match.

It was known that the lockwork of the Martini action was far faster than that of the Springfield. An attempt had been made to speed up the Springfield lockwork by lightening the firing pin, but this had harmed the accuracy more than it had helped it, because these light firing pins had speed, but not enough weight, so that they did not strike a hard enough blow. The result was that the ignition of the primers was not uniform and the shots had a tendency to string up and down the target. There were two officers of the Ordnance Department with the team in 1925, and they became much interested in getting equipment for our team which should be the equal of any in the world. One of these officers bought from his own pocket one of the finest Martini actions that could be obtained, and a special set of four-lever set triggers, and donated them to the Ordnance Department for use in preparing new designs.

As soon as the team had returned to the United States, the work of improving the match rifles as much as possible was undertaken. It was soon apparent that there was no action equal to the

Springfield for International Match work obtainable in this country. Many years ago



Close-up of above rifle

Winchester and Stevens both made Schuetzen rifles, that had many features of the Swiss Martinis; but these guns were built around an action that was intended for the .32-40 and other comparatively low-power loads, and was not well adapted to the high-power smokeless loads of today. Moreover, these models were discontinued years ago, and can not be purchased at all any more. Accordingly the Ordnance Department at once undertook

to improve the special match Springfield rifle as much as could possibly be done. One of the foremost small-arms designers in the country was put on the problem of producing the fastest possible lockwork for the Springfield rifle. This resulted in the design and manufacture of the Garand firing pin for the Springfield, which is even faster than the firing pin on the Martini. Using the Swiss set triggers mentioned above as a basis for starting his work, Captain Woody designed the finest set trigger that has ever been produced. The recommendations of the team in regard to barrel length were also adopted, and the 1927 rifles were made with Garand firing pin, Woody set triggers and 28-inch heavy barrels.

It is my belief that the guns that we had for the 1927 rifle team were the very best Springfield heavy match rifles that have ever been furnished to a team. However, the guns are only one element in shooting a match, and unfortunately the team was defeated at Rome. There were a number of reasons advanced for the defeat, and naturally one of them was that the rifles were not as good as those of the Swiss. For one thing, it was said that the barrels of the rifles were too short and that the guns would hang better for shooting in the standing position if they had more weight toward the muzzle. It will be recollected that this is exactly the opposite of what was said the year before. It was found that the set triggers were very much more sensitive than any other set trigger that had been used before; that they could be set so light as to be almost on the point of going off by themselves. In this condition they had a tendency

to vary slightly and sometimes required a little more pressure than at others.

After the team got back from Rome a conference was held and a committee was appointed to do everything possible to im-

prove the four-lever Swiss set trigger and the special trigger guard, which also acts as a finger rest. On the right-hand side of the stock is a thumb rest made integral with the wooden stock. All rifles have two adjustable butt plates, each fitted by hand to the individual rifles and marked with a rifle number. The maximum and center positions for these butt plates are indicated by engraved lines. The Swiss competitors note the position of the butt plate for each marksman for each position by counting the number of teeth from the lower mark, and these adjustments are recorded in the scorebook. The palm rest is adjustable up and down and also in all directions. It is the practice of Swiss marksmen to learn the best adjustment of the palm rest, and then mark it by scribing lines on the metal parts.

The barrels are made from special steel obtained for this particular job, and is the same steel that is used in the Swiss match rifles. After boring and rifling the barrels are lapped to a high polish inside.

The four-lever Swiss set triggers are adjustable to a very light pull, indeed. In fact, they can be adjusted so light that the triggers can be set off by blowing against the front one. The pull is adjusted by means of a small set screw located between the triggers, which has two screw-driver slots in it at right angles to each other, thus forming a cross and dividing the screw head into quarters. A half of one of

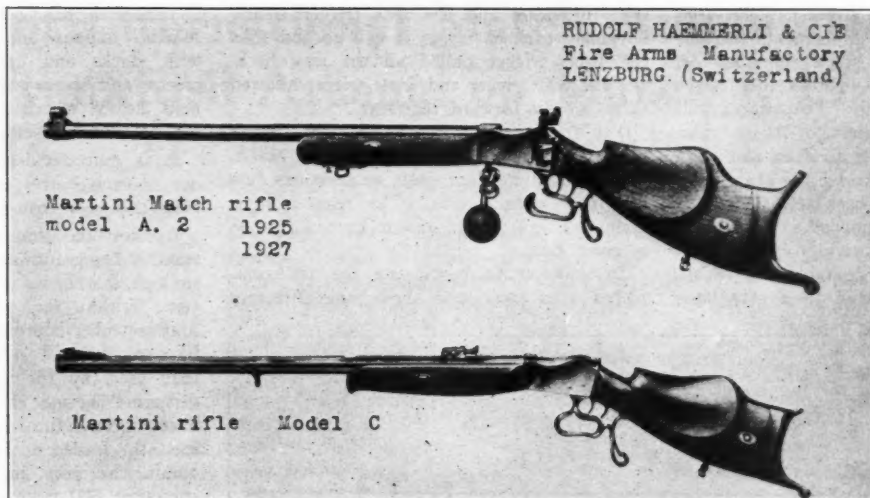


Fig. 3



Fig. 1

prove on the 1927 rifles. One thing that was done was to refit the guns with 30-inch barrels, as suggested by members of the team. Another thing was to redesign one of the springs in the Woody set trigger, which caused a very much improved action when the trigger was set to a very light pull.

It was found in Switzerland last year that

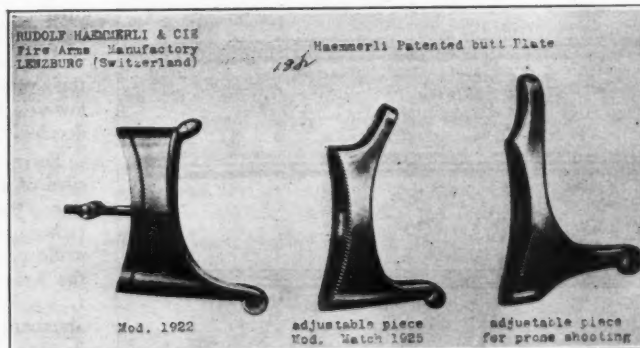


Fig. 2

these quarter-turns is the greatest change used by the Swiss in making adjustments to their trigger. Driving the screw in—that is, turning it to the right—lightens the trigger pull on the front trigger. The trigger pull is so light that the users of these rifles should be cautioned never to open and close the breech with a cartridge in the barrel when the triggers have been set, as the jar is certain to set the gun off. Should the triggers be set with a cartridge in the bore, and it is then found desirable to unload, the rifle should be pointed to a safe posi-

tion for firing and the rear trigger should be pulled back as far as it will go and then the front trigger pulled all the way back, and the rear trigger and front trigger allowed to go slowly forward together.

The front sight is a hooded sight similar to that used on our own International Match rifles, and having four posts or apertures furnished with each rifle. The rear sight is almost an exact copy of our Lyman No. 48 receiver sight.

In addition to purchasing the ten completed rifles mentioned above, the Ordnance

Department has obtained thirty sets of Martini actions and set triggers, together with stocks and two adjustable butt-plate pieces, and these will be fitted with Springfield heavy match barrels and placed on sale to civilian riflemen.

It is quite evident from the above that our team is better equipped in the way of rifles this year than it ever has been before.

As for the ammunition this year, the team is being furnished with ammunition of as high a velocity as can be obtained and come within the pressure limits for the Martini rifle. Our ammunition will actually be over 100 f. s. higher in velocity than that used by the Swiss. This is a new departure, because the preceding two teams have been furnished with ammunition specially loaded to a velocity necessary to obtain the very highest machine rest accuracy at 300 meters.

It was found, through a great number of tests made in 1924 and 1925 and continued ever since, that the best accuracy at 600 or 1,000 yards is obtained with one velocity, and the best accuracy at 300 meters is obtained with another. The best accuracy at 300 meters is obtained with ammunition which, when measured with a 24-inch barrel, gives an instrumental velocity of about 2,200 f. s. This corresponds to a muzzle velocity of 2,260 f. s. in a 24-inch barrel and to an actual muzzle velocity of 2,350 f. s. in the 28-inch barrels used by the team in 1927. The actual muzzle velocity of the Swiss ammunition was 2,505 f. s., instrumental.

When it was first found that this so-called "low-velocity" ammunition gave the best accuracy at 300 meters, there was considerable discussion as to the advisability of using it owing to the possibility of increased wind effect. Many tests along this line were made, and an officer from Frankford Arsenal who was a shooting member of one of the former International teams was sent to Aberdeen especially to conduct extensive firings, on windy days, of this ammunition in comparison with higher-velocity ammunition. These tests showed that the ammunition was more accurate even when the wind effect was considered.

For the selection of the 1925 ammunition a test was held between Frankford Arsenal and all the commercial companies who desired to compete. It so happened that this test was fired on a very bad windy day, and some of the commercial ammunition of high velocity was blown off the target. Even on this very bad day the Frankford Arsenal low-velocity ammunition won the test decidedly, and was therefore adopted.

There was a considerable amount of criticism of this so-called "low-velocity" ammunition; but some of this criticism sounds rather ridiculous to old-timers who have made possibles on the 1,000-yard range with the Krag rifle having a velocity of only 1,900 f. s. When it was remembered that this ammunition at 450 f. s. higher velocity than

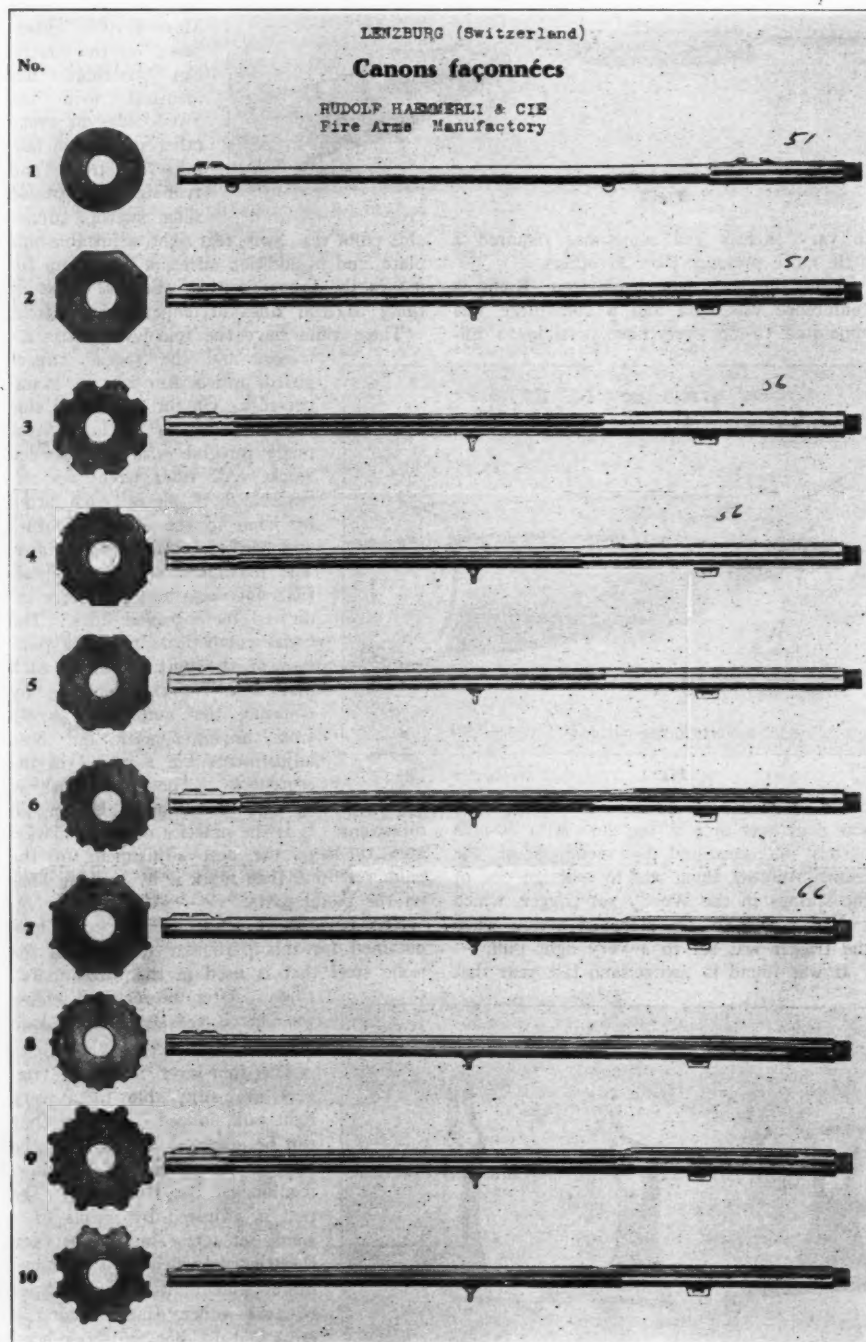
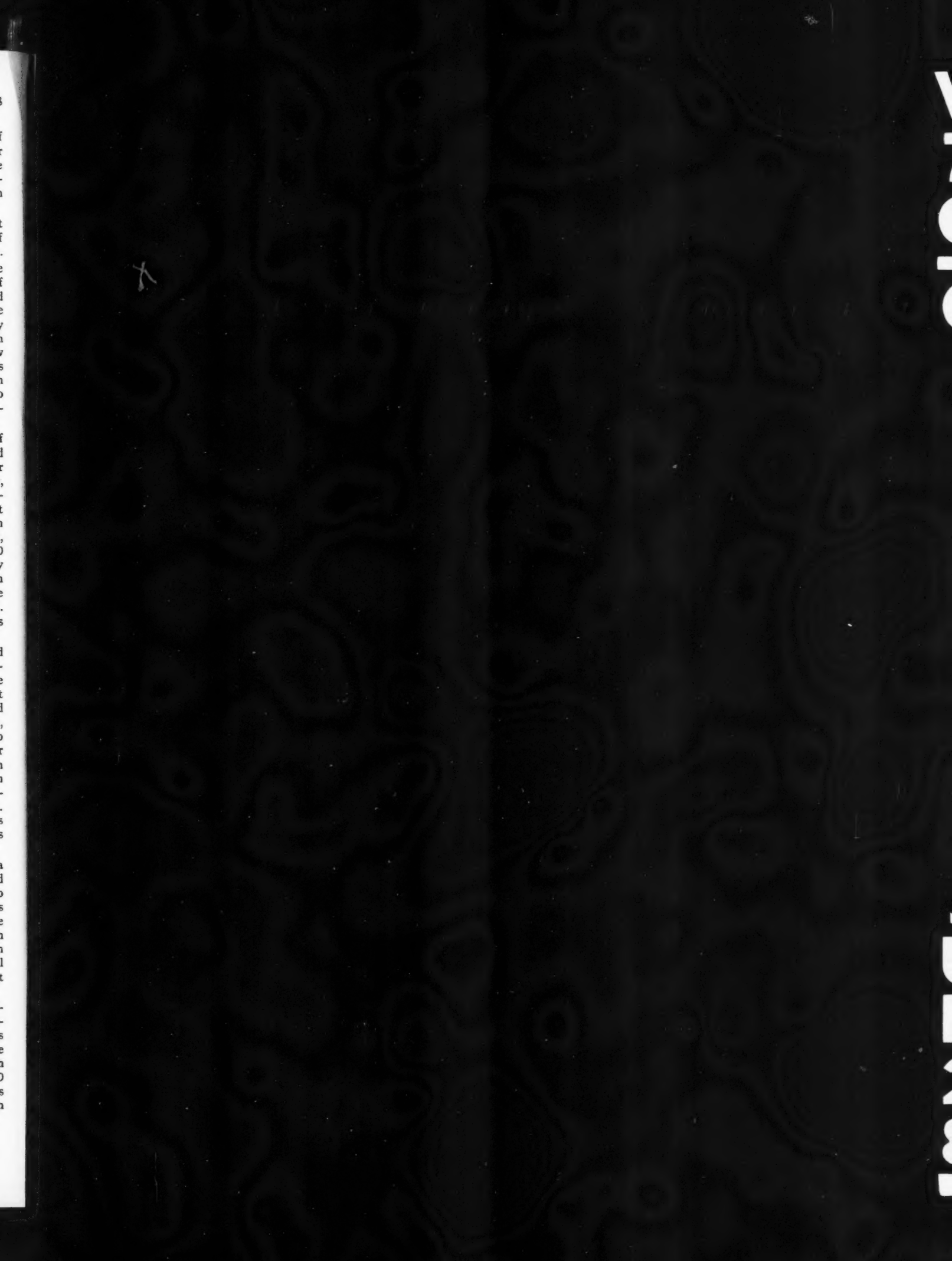


Fig. 4

(Continued on Page 18)



Test of International Match Ammunition at Frankford Arsenal on March 1, 1928

By Wallace L. Clay, Major, Ordnance Dept.

AN EFFORT was made by the Ordnance Department this year to obtain competitive bids from the commercial cartridge companies for the manufacture of 50,000 rounds of International Match ammunition for use of the American Team. It was contemplated that a competitive test would be held at the Aberdeen Proving Ground, Md., on March 1 and 2, 1928, for the purpose of determining which type of ammunition gave the best figure of merit, after which award would be made to the successful competitor at the price quoted in his bid under the circular proposal. It was intended that the cartridge companies would compete with Frankford Arsenal in quality of their product.

Much to the disappointment of officers of the Department, no bids were received on the above-mentioned circular proposal. It was necessary for Frankford Arsenal to prepare the lots of International Match ammunition for test by the Ammunition Board on March 1 and 2.

The Secretary of War had appointed a Board for the purpose of determining the type of ammunition to be used in the National and International Matches for the year 1928 and making the necessary tests for the selection of same. The Board, consisting of the following members, met at Washington, D. C., on November 15, 1927:

Brig. Gen. C. L. H. Ruggles, Asst. Chief of Ordnance.

Lieut. Col. Geo. C. Shaw, Infantry.

Comdr. Andrew D. Denney, U. S. Navy.

Lieut. Col. Townsend Whelen, Ord. Dept.

Lieut. Col. F. M. Waterbury, Ord. Res.

Maj. Sanderford Jarman, Coast Artillery Corps.

Maj. W. L. Clay, Ord. Dept.

Maj. Herbert O'Leary, Ord. Dept.

Maj. Thompson Lawrence, Infantry.

Maj. A. H. Turnage, U. S. Marine Corps.

Maj. L. W. T. Waller, Marine Corps Res.

Maj. Francis W. Parker, Jr., Ord. Res.

Capt. James L. Hatcher, Ord. Dept.

Capt. G. L. Wotkyns, Ord. Dept.

Mr. K. K. V. Casey.

There were also present representatives from the arms, ammunition and powder companies.

It will be noted that this Board was not assigned the duty of selecting the arms for the National and International Matches, although there was considerable discussion as to the type of arms to be used, during the Board meeting. This was, of course, necessary in connection with the preparation of the specifications for the ammunition.

Upon completion of the preparation of the specifications the Board adjourned and was reconvened by direction of the senior member at Frankford Arsenal on March 1, 1928,

for test of the International Match ammunition prepared by that arsenal. The place of meeting was changed from Aberdeen Proving Ground to Frankford Arsenal, due to the fact that there were no other competitors entering ammunition for test. Due to lack of competitors it was necessary for the Board to slightly alter the firing program laid down at the first meeting, and such changes were accordingly made at the meeting on March 1, after which the Board proceeded to supervise the test of the lots prepared by Frankford Arsenal.

The characteristics of the two lots submitted are given herewith:

TEST LOT NO. 1

Case.—Caliber .30; neck not annealed.
Primer.—F. A. No. 70; cup made from metal manufactured by the Western Cartridge Co.
Bullet.—172-grain, gilding-metal jacket, 9° boat-tail; no cannelure (Lot No. 74).
Powder Charge.—51.1 grains IMR-1147, Lot 1492.

Machine-Loaded

Instrumental Velocity in 30 inch Mann barrel, 2,715.1 f. s.
Mean Pressure in 24 inch gauge, 42,650 pounds.

TEST LOT NO. 2

Case.—Caliber .30; neck not annealed.
Primer.—F. A. No. 70; cup made from metal manufactured by the Western Cartridge Co.
Bullet.—172-grain, gilding-metal jacket, 9° boat-tail; no cannelure (Lot No. 74).
Powder Charge.—51.1 grains IMR-1147, Lot 1492.

Hand-Loaded

Instrumental Velocity in 30 inch Mann barrel, 2,738 f. s.
Mean Pressure in 24 inch gauge, 43,250 pounds.

In developing this ammunition Frankford Arsenal made exhaustive tests of the specially selected bullets to determine the diameter of the bullets which would give the best results while tests were made at various velocities; but in view of the specifications requiring a minimum instrumental velocity of 2,700 f. s. in a 30-inch Mann barrel, it was necessary to select those bullets which gave the best results at or about that particular velocity.

Unfortunately the weather man again treated us to a strong, gusty wind, which blew across the range during the entire firing. In fact, a slight snow flurry existed when the firing program started. This strong wind accounts for the greater part of the spread in horizontal of most of the targets, but as it is essential to know how ammunition will function against a strong wind, it is probably better to have a test under such conditions knowing that considerable improvement will result without the wind.

The pressures and velocities obtained with each lot of ammunition are recorded above under the characteristics of the lots. Four Mann barrels were selected for the accuracy firings. Two of these barrels were assigned to rest No. 1 and the other two to rest No. 2. Five targets were then fired, using ammunition test Lot No. 1 and rest No. 1, while five targets were being fired from ammunition test Lot No. 2 on rest No. 2.

This program was repeated, using the second Mann barrels assigned to rests Nos. 1 and 2, respectively, after which ammunition Lot No. 1 was assigned to No. 2 rest and ammunition Lot No. 2 was assigned to No. 1 rest, and the program repeated, utilizing the same Mann barrels as previously assigned to the respective rests. Cleaning Mann barrels was authorized after five targets had been fired from each. No lubricants of any kind were allowed on the ammunition at this time. Results of the accuracy firing in the four Mann barrels are given below:

AMMUNITION TEST LOT NO. 1, MACHINE-LOADED

	Tar- get	F.of M.	Ex. ver.	Ex. hor.	Ex. spd.
Rest No. 1	1	3.82	2.45	5.20	5.28
Mann barrel receiver No. 1276929	2	3.10	1.40	4.80	4.90
30 inch barrel, No. 409, fired 80 times	3	2.68	2.35	3.02	3.15
	4	2.57	2.50	2.65	2.72
	5	2.16	2.52	1.80	3.03
		14.33	11.22	17.47	19.08
Mean		2.87	2.24	3.49	3.82

Rest No. 1	6	2.52	2.45	2.60	3.15
Mann barrel receiver No. 1276939	7	3.18	2.55	3.82	3.85
30 inch barrel, No. 410, fired 80 times	8	3.86	4.33	3.40	4.50
	9	1.72	2.20	1.25	2.25
	10	3.55	3.40	3.70	3.80
		14.83	14.93	14.77	17.55
Mean		2.97	2.99	2.95	3.51

Rest No. 2	11	3.10	2.19	4.02	4.08
Mann barrel receiver No. 1276935	12	2.45	2.00	2.90	3.45
30 inch barrel, No. 411, fired 130 times	13	2.62	2.45	2.79	3.10
	14	3.05	2.40	3.70	4.15
	15	3.15	2.30	4.00	4.05
		14.37	11.34	17.41	18.83
Mean		2.87	2.27	3.48	3.77

Rest No. 2	16	3.30	3.00	3.60	3.60
Mann barrel receiver No. 1283619	17	1.99	1.60	2.38	2.40
30 inch barrel, No. 416, fired 130 times	18	2.62	2.35	2.90	2.90
	19	2.71	2.75	2.68	3.00
	20	2.77	2.55	3.00	3.35
		13.39	12.25	14.56	15.25
Mean		2.68	2.45	2.91	3.05
Grand average..		2.85	2.49	3.21	3.54

AMMUNITION TEST LOT NO. 2, HAND-LOADED

	Tar- get	F.of M.	Ex. ver.	Ex. hor.	Ex. spd.
Rest No. 2	1	3.82	3.40	4.25	4.30
Mann barrel receiver No. 1276935	2	2.70	2.50	2.90	3.15
30 inch barrel, No. 411, fired 80 times	3	3.22	3.85	2.60	4.40
	4	4.26	3.57	4.95	5.40
	5	2.95	3.80	2.10	3.80
		16.95	17.12	16.80	21.05
Mean		3.39	3.42	3.36	4.21

Rest No. 2	6	1.97	2.75	1.20	2.75
Mann barrel receiver No. 1283619	7	2.60	3.10	2.10	3.60
30 inch barrel, No. 416, fired 80 times	8	2.92	2.45	3.40	3.95
	9	1.95	2.00	1.90	2.35
	10	2.22	1.65	2.80	2.90
		11.66	11.95	11.40	15.55
Mean		2.33	2.39	2.28	3.11

(Continued on Page 35)

Determining the Length of Shot Strings

By Philip P. Quayle, Peters Cartridge Co.

THE problem of determining both qualitatively and quantitatively the length of a charge of shot in flight is a most interesting one and has received the attention of various experimenters from time to time.

We are indebted to the courtesy of Capt. Wm. deV. Foulke for permission to reproduce from one of his letters a brief account of some exceedingly interesting and unique experiments carried out in the '70's pertaining to the length of shot strings.

"I paid 'brakies' on coal trains to let me tack sheets of paper on the wood coal cars then in use. Of course, the slow speed of such trains made a small oval of the printed cloud, but the results were fairly constant. Greener (the original) used to determine the amount of 'stringing' by standing behind a target plate. I did this also for a check on my oval patterns. The difference in 'stringing' shown by different guns was very marked, and varied much in load variations."

More recently the British have carried out experiments on the same plan as Captain Foulke's in which they mounted their pattern plate on an automobile and obtained patterns when the car moved at right angles to the line of flight at different speeds. They concluded that the stringing effect was of no importance for speeds under 40 miles an hour.

We are concerned in this paper only with quantitative methods of determining the length of shot strings, and these fall roughly into two classes, direct and indirect.

1. The first, or direct, and most accurate method consists in determining the length of the string by taking actual photographs of it.

2. In the second, or indirect, method the length of the shot string is calculated from its effects at a pattern plate, either by moving the plate at a known speed, or if the plate is stationary, by electrical means. Gorbett in 1801 made use of rapidly revolving disks of paper which the projectiles pierced; and modifications of this rather inaccurate apparatus are in use at present. From the displacement of the holes in these paper sheets, made by the same pellet, drawings are constructed to represent the supposed distribution of the shot charge.

Under the direct method the spark photographs at short range of shot strings published in THE AMERICAN RIFLEMAN in 1925 constituted, as far as we are aware, the first actual full-sized photographs of such phenomena.

However, the physical laboratory of the Peters Cartridge Co. has succeeded in taking actual full-sized photographs of the shot strings of shells of various manufacturers at ranges up to and including 40 yards from the muzzle of the gun. This is the first time that an entire shot string at 40 yards has ever been photographed, nothing even remotely approaching it having ever before been attempted. As a result of these photographs

we are able to say, for the first time in the history of ballistics, what the actual distribution of the shot pellets really is.

The apparatus with which these photographs are taken is the most complete and precise electric photographic equipment ever constructed. These photographs are secured without touching or interfering with the shot in any manner whatsoever. Even the actual operation of the apparatus is automatic and is set off by the sound wave which accompanies the discharge of the gun. It is therefore unnecessary for the shot pellets to pierce sheets of paper or other material, thus incurring uncertain decelerations and disturbances.

It is evident that a spark photograph of a shot string portrays the actual distribution of every shot pellet in the charge. It accomplishes this directly and without complication, presenting for leisurely study the record of the shot pellets as it existed in the one or two millionths of a second required to take the photograph.

Hence, regardless of what we may hope or wish to believe in regard to any particular load, we must, if we are of open mind, compare our beliefs with authentic records of the phenomena whenever these are available, and modify our views accordingly.

Since spark photography is the only method available at present by which we may obtain absolutely unbiased records of shot strings, it constitutes, as it were, the verdict of the Supreme Court, from whose decision there is no appeal.

With this in mind we have obtained the same type of load of each of three different manufacturers and fired these loads from the same gun under the same conditions of temperature and humidity. We have obtained photographs of these three different makes of shells and compared the results. Our conclusions in regard to these various loads at 11 yards may be checked by anyone so inclined, since the photographs at this range are of such a size as to make feasible their reproduction in this magazine.

TABLE 1
SHOT-STRING TESTS AT 11 YARDS FROM MUZZLE

Manufacturer	Nominal shot charge	Trial	Length of shot string in ft. as measured on a film 10 in. wide and 5 ft. long, including		
			100% of the shot	75% of the shot	50% of the shot
Peters	High velocity... 1½ oz. No. 7 ch.	1	4.7	1.5	1.0
		2	3.9	1.5	1.0
		3	4.2	1.4	0.8
		Average	4.3	1.5	0.9
Competitor A	1½ oz. No. 7 ch.	1	4.4	1.2	0.8
		2	4.5	1.7	1.2
		3	4.1	1.5	1.1
		Average	4.3	1.5	1.0
Competitor B	1½ oz. No. 6 ch.	1	4.0	1.5	1.0
		2	4.1	1.8	1.3
		3	4.0	1.4	0.9
		Average	4.0	1.6	1.1

Shells of Competitor B loaded with No. 7 chilled shot were not available at the time of our experiments. However, at a range of 11 yards the shot-string measurements here presented would suffer no appreciable change had No. 7 shot been used instead of No. 6.

At the range of 11 yards, at which the above spark photographs were taken, the shot charge of any of these shells is sufficiently spread out so that it seems highly improbable that collisions or disturbances resulting from the top shot would any longer occur.

TABLE 2
SHOT-STRING TESTS AT 40 YARDS

Manufacturer	Nominal shot charge	Trial	Length of shot string in ft. as measured on film 31.5 in. wide and 20 ft. long, including		
			100% of the shot	75% of the shot	50% of the shot
Peters	High velocity... 1½ oz. No. 6 ch.	1	9.7	5.5	2.6
		2	12.6	4.1	3.2
		Average	11.2	4.8	2.9
Competitor A	1½ oz. No. 6 ch.	1	13.2	6.0	4.9
		2	10.9	5.1	3.4
		Average	12.0	5.6	4.2
Competitor B	1½ oz. No. 6 ch.	1	13.8	5.2	4.1
		2	10.9	5.1	3.4

The films of the entire shot string from which the above data were obtained were each preceded by some twenty test films showing the same distribution of the shot pellets of the head of the column.

Other factors being equal, the smaller the size of the shot the longer the string; but this in itself is misleading. In measuring the total length of a shot string it frequently happens that the last few feet of the film will contain only a very small portion of the shot; sometimes only three or four pellets. Thus several feet may be added to the length of the string by the pellets of least importance because of their low velocity. It is a better measure of shot-string length to consider only the length, including, say, 75 per cent of the shot pellets, since this measures in reality the length of the most effective part of the load.

However, it is interesting to note the manner in which the shot distributes itself, and with this in mind the accompanying Tables 1 and 2 have been prepared. These data show that at a range of 40 yards the average shot string for No. 6 chilled shot is 12 feet long. This length may be further divided approximately as follows: the first 3.6 feet contains 50 per cent of the shot pellets; the next 1.6 feet contains 25 per cent, and it is in this region that the shot pellets are most dense. Finally the last 6.8 feet of the shot string contains the remaining 25 per cent or least effective portion of the shot pellets.

There is no shot shell in existence in which the shot pellets are concentrated at the head of the column, nor would this be

V
e
l
e

U
N
I
T

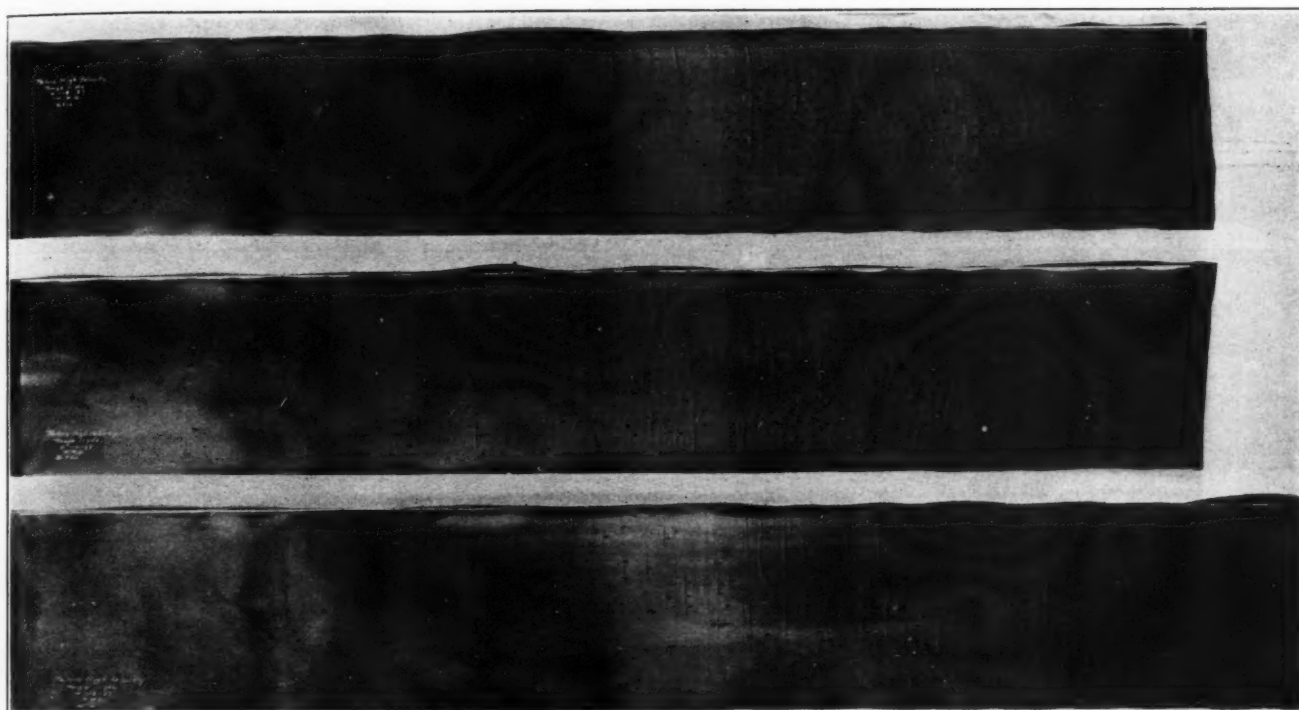


Fig. 1—A, B, and C (Top to bottom.)
These spark photographs, taken at a range of 11 yards from the muzzle, show the distribution of the shot from Peters High-Velocity Shell

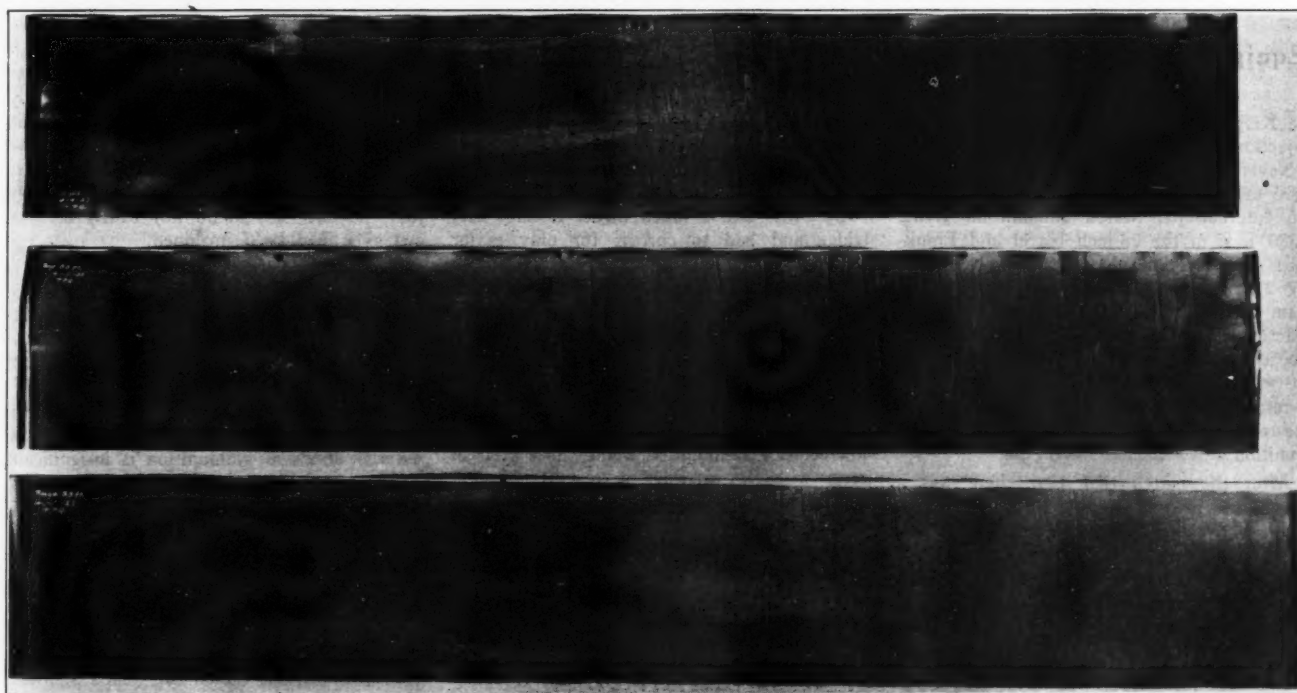


Fig. 2—A, B, and C.
These spark photographs, taken at a range of 11 yards from the muzzle, show the distribution of the shot from the shells of Competitor A

of any particular advantage if it were true; and as already shown in a previous paper it might be a considerable disadvantage.

It will probably be evident to the most casual reader that from the standpoint of *length of shot string alone* there is absolutely nothing to commend one of these shells in preference to another.

In conclusion, we believe that the spark photographs here presented supply incontrovertible evidence to prove that in so far as *the length of the shot string alone is concerned* the shells of the three manufacturers mentioned in this article are absolutely identical within the limits of the slightest practical importance. Since these shells are typical of

the best grades of shot shells the world over, our remarks here are equally applicable to them all.

The author wishes to express his appreciation of the assistance in the experiments of Mr. C. T. Ervin, of the physical laboratory of the Peters Cartridge Co., and of Mr. H. D. Bruce, of the Bureau of Standards, for helpful suggestions and criticisms. (See Fig. 3, page 18.)

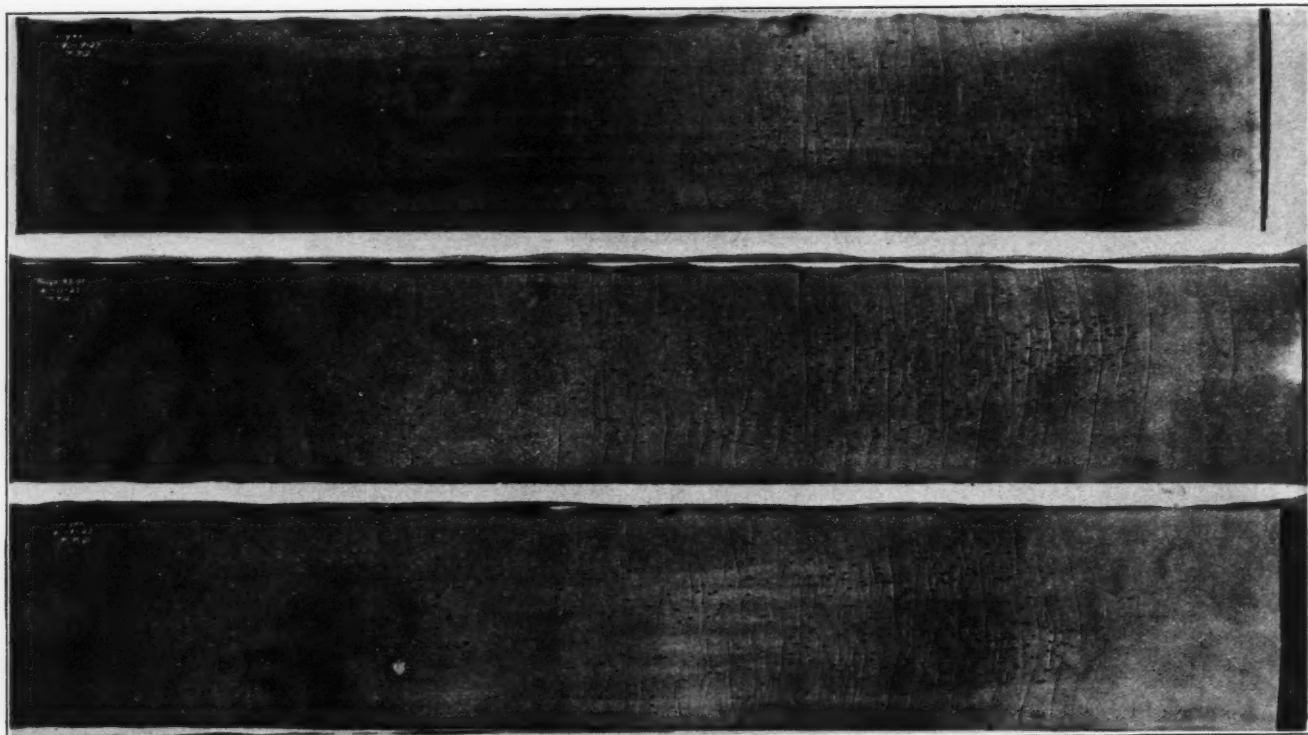


Fig. 3—A, B, and C
These spark photographs, taken at a range of 11 yards from the muzzle, show the distribution of the shot from shells of Competitor B

Equipping International Team

(Continued from Page 14)

the Krag was to be fired at 300 meters, the objection did not seem very serious.

Nevertheless, both kinds of ammunition were taken with the team in 1925—that is, the International Match ammunition giving 2,350 f. s. in the 28-inch barrel and Frankford Arsenal Palma Match ammunition giving 2,916 f. s. in the 28-inch barrel. The team used both kinds of ammunition in the practice up in a valley in the hills near Voegelinsegg, where there was a very bad gusty wind blowing most of the time. As a result of this shooting it was decided by the team officials to use the low-velocity ammunition.

After the match that year there was a great deal of talk by one member of the team, who claimed that the ammunition was no good because it was too low in velocity; and he insisted that if he had had some other kind of ammunition he could have made a good score. One thing that removed a good deal of the force from his argument, however, was the fact that he shot fairly well standing and kneeling, but could not shoot well prone at all, either in the practice or in the matches. It seems incredible, again, that the same kind of ammunition could shoot well in the standing and kneeling positions and pick out one man's prone position in which to be bad. It looks a whole lot more as if there were something the matter with the man himself; and this view of the matter was amply confirmed when another

American shooter, who was shooting in his first International Match at that, lay down and broke the world's record prone with this same ammunition at Rome in 1927.

This talk about the velocity of the ammunition, however, became widely circulated. One man wrote on this subject and said: "The Swiss had a much higher-velocity cartridge and had to correct for only major changes, while our unhappy gang had to correct every time any shooter within seven benches on either side sneezed." As a matter of fact, the deflection at 300 meters with a 10-mile wind is $4\frac{3}{4}$ minutes with our cartridge and $4\frac{1}{4}$ minutes for the Swiss, a difference of only $\frac{1}{3}$ of a minute.

One member of the team thought that the low-velocity ammunition would cause a larger error with the cartridge in case the shooter canted his gun. Actual figures on this indicate that canting the gun one degree would cause a deflection of $\frac{1}{2}$ inch on the target with the high-velocity ammunition and of $\frac{7}{10}$ inch with the low-velocity ammunition. Another argument advanced against the low-velocity ammunition was the fact that the barrel time is bound to be

somewhat longer with the slower ammunition. It was said that, after working as hard as we did to reduce lock time by speeding up the firing pin, we would lose the advantage we had gained in this way if we used the slow ammunition that had a longer barrel time. However, calculations show that this fact was in no way nearly as serious as it had been imagined.

The lock time of the Springfield rifle is about .0057 of a second, and the difference in barrel time of the two kinds of ammunition is only .0003 of a second, a very small percentage of the lock time. The Garand firing pin reduces this lock time on the firing pin .0022 of a second. It will be seen that the difference in barrel time due to the different kinds of ammunition is insignificant compared to these figures.

While it is certain that the velocity of the ammunition had nothing to do with our defeat either at St. Gall or at Rome, nevertheless, after so much talk had gotten around, it was thought wiser to give the team a higher-velocity ammunition this year, so that at least their minds would be at rest on this subject. For this reason this year's ammunition was speeded up as much as possible, and at the same time a way was found to greatly increase the accuracy of the already super-accurate 1925 International Match bullet. The ammunition which won the International Match test at Frankford Arsenal this year has a muzzle velocity of 2,775 f. s., and it is believed is the very best ammunition that has ever been furnished an International Team.

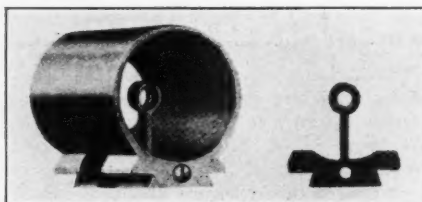


Fig. 5. Front Sight used on this year's Martini Rifles

i-
s
y
e
e
r
w
i-

s
e
i-
ll
d
r-
n
e
t

f
r
-
l,
a
t
s
i-
e,
o
y
h
-
l

r
-
-

Executive Committee Makes Important Changes In Match Regulations

AT ONE of the most important meetings held in a long time, the Executive Committee of the National Rifle Association on May 4 made a number of changes in the N. R. A. match regulations and courses of fire. All shooters should familiarize themselves with these changes. Some of them were made necessary by the shortening of the period for the National Matches at Camp Perry this year, and others were brought about in the interests of uniformity. The changes were all made only after careful consideration and discussion by the Executive Committee.

IMPORTANT CHANGES IN COURSES OF FIRE

The sighting shots were eliminated from all National Rifle Association individual and team matches fired at Camp Perry, with the exception of the free-rifle competitions. There was eliminated from the Camp Perry Program the 200-yard Any-Rifle Match. This match was first placed in the program at the time that the N. R. A. was endeavoring to develop interest in the free-rifle type of shooting and before the present International Free-Rifle Range was available at Camp Perry. It is planned to add several free-rifle 300-meter matches to the Camp Perry Program this year, so that there is no good reason for the continuance of the 200-yard Any-Rifle Match.

The course of fire in the President's Match this year will call for 10 shots at 200 yards, slow fire, 10 shots at 600 yards, and 10 shots at 1,000 yards. This reduction from 20 shots to 10 shots at 1,000 yards is made necessary by the limited length of time available for the holding of matches at Camp Perry this year. An incidental feature of the reduction in the number of shots at 1,000 yards will be the probable benefit to civilian riflemen. It has frequently happened that many civilians were in the President's Hundred after they had finished firing at 600 yards who had been displaced before the long 20-shot string at 1,000 yards was finished.

The course of fire in the Marine Corps Cup Match this year will be 10 shots at 600 yards and 10 shots at 1,000 yards. This is just half the number of shots at both ranges which have been fired in the past. The reasons for the change were the same as in the case of the 1,000-yard stage of the President's Match.

The course of fire in the A. E. F. Roumanian Team Match this year will be 10 shots at 200 yards and 10 shots at 600 yards. This is a reduction from the 15-shot course at both ranges which has applied in the past.

The Camp Perry Instructors' Match this year will be in part combined with the President's Match. The course of fire in

the Camp Perry Instructors' Match calls for 10 shots at 200 yards offhand with the rifle and 10 shots at 50 yards, slow fire, with the pistol. There being no room on the range for the firing of the 200-yard rifle stage except with involved squadding, it has been decided that the 200-yard stage of the President's Match will be considered as also applying to the 200-yard rifle stage of the Camp Perry Instructors' Match. The pistol stage will be fired as a separate stage.

In the Individual Civilian Club Members' Match a change has been made which it is believed will appeal to the civilian shooters. It was not possible to squad this match as a separate event because of limited target facilities. The Individual Civilian Club Members' Match this year will be an aggregate match. The scores made in the N. R. A. Rapid-Fire Championship at 200 and 300 yards, and in the President's Match at 200, 600, and 1,000 yards constituting the course of fire to be considered in the award of medals and cash. This change gives the civilians a miniature grand aggregate of their own and provides a diversified course of fire which will enable the good all-around shot to win.

The United Service Match has for a long time been a problem both as to the proper selection of teams and in the finding of time and a place to fire the competition. All members of the United Service Teams, regardless of where their team might finish, received medals, and a civilian team, even though it was high, might not win the trophy. It was absolutely impossible to find a place to shoot the United Service Match this year. Accordingly, the conditions of this established competition have been changed so that it now resembles the mythical All-American football squad or All-American crew. The scores made in the N. R. A. Rapid-Fire Championship and in the President's Match will be considered in the selection of the five United Service Teams, the high 20 men from the Army, the high 20 from the Navy, the high 20 from the Marine Corps, the high 20 from the National Guard, and the high 20 civilians being automatically considered as members of their respective United Service Teams. The special United Service Team Medal will be awarded each of these teams of 20 men, and the United Service Trophy will be awarded to the team which under these conditions has the highest aggregate score. Request has been made of Col. R. M. Thompson, the donor of the trophy, to change the conditions so that the trophy may be awarded to the civilian team should it have the high aggregate score under these revised conditions. As has been true in the past, there will be no entry fee in this competition.

The Executive Committee of the N. R. A. will request the executive officer of the matches to arrange, if possible, so that a portion of the last two days of the School of Instruction may be devoted to sighting in of rifles at 200, 600 and 1,000 yards, so that competitors may know the zero of their rifles before they begin firing in the matches, inasmuch as they will have no sighting shots this year in any of these matches.

In view of the added burden which will be placed on the Statistical Office this year in squadding matches, the entry-closing time has been advanced to 1 p. m. instead of 3 p. m. of the second day preceding the firing of each match. The post entry-closing time has been advanced to 1 p. m. of the day preceding the firing of the match instead of 8 p. m., as has been the case in the past. With these two changes Colonel Coward hopes to be able to issue all squadding tickets beginning at 6 p. m. of the day preceding the firing of the match.

CHANGE IN THE USE OF V'S TO DECIDE TIES

The V-ring, when added to the B and C targets in 1922, was intended to be used only as the final factor in deciding tie scores. This primary function of the V has been somewhat overlooked in the development of various regulations since 1922, with the result that ambiguities have crept into the rule for the deciding of ties and there have been numerous protests and misunderstandings. The rule which was adopted by the Executive Committee on May 4 for the decision of ties goes back to the original intention relative to the V-ring. The rule now reads as follows:

"Only in determining the rank of shots in inverse order will the 'V' be considered as the shot of highest value."

This change eliminates any consideration of the total number of V's over the course as a deciding factor in the decision of ties. The only consideration that will be given the V will be in Creedmooring the string—that is, in counting from the last shot to the first in inverse order. After the various other methods of deciding ties which are well known and have been in effect for many years have been exhausted and it becomes necessary to count the shots in inverse order from last to first, the V is then considered as a shot of higher value than a five, and the man with a V on the end of his string will outrank a man with a 5 on the end of his string. Practically the only case where this represents a departure from the method of deciding ties which has been in use for the past two or three years is in the case of the Wimbledon, where 20 shots are fired at one range. For the past two or three years, in this match in the case of possible scores, the man with the greatest

number of V's has been declared the winner. Under the new rule the total number of V's will have no bearing on the matter.

While this change may at first glance appear to be radical, anyone who has had to do with statistical matters and who has come to a realization of the fact that the V was being considered in one way in the case of possible scores and in an entirely different way in the case of less than possible scores or in the case of multiple stage matches, will realize that the change is absolutely necessary in the interests of uniformity and in the clearing up of the ambiguous phraseology which has caused endless trouble recently.

Additional provisions were added to the tie rule stating that in the case of individual matches fired at one range, but in more than one position, ties will be decided, first, by the highest standing score; second, the kneeling score; third, the sitting score; fourth, the prone score; and then, if still a tie, by Creedmooring the strings beginning with the standing position, then the kneeling position, etc. As a matter of fact, this rule has long been observed by statistical officers everywhere, but it has not been specifically stated in the N. R. A. conditions.

Another addition which was made was in the case of matches fired at one range but divided into rapid-fire and slow-fire stages. In this case the tie is to be divided, first, by the highest score at slow fire, then by the highest score at rapid fire, and if still a tie, by Creedmooring the slow-fire stage. There has in the past been some question on the part of statistical officers as to just which was the deciding factor in a match of this type—whether the rapid-fire score should be considered first or the slow-fire score.

SMALL-BORE RULE ON DOUBLE SHOTS

Two years ago when the improvement in .22-caliber ammunition had resulted in such close grouping of shots, particularly at 50 yards, that competitors made many claims of double shots being in the same hole, a rule was put into effect placing on the competitor the necessity of showing 10-shot holes in his target and permitting him to fire as many shots as might be necessary in order to show the 10 hits. *This rule has now been rescinded.* The regulations for the firing of small-bore matches at 50 and 100 yards now read:

"In 50-yard matches not more than 10 shots will be fired at one target card, 2 shots to be fired at each of the five bulls. Only the required number of hits on the target card, of lowest value, will be counted; and, in addition, the competitor will be penalized one point for each shot in excess of 2, which may have been fired at each bull."

"In 100-yard matches 10 shots will be fired at each target card. Only the required number of hits on the target card, of lowest value, will be counted."

"If complaint is made that a competitor has fired on the wrong target it shall be the duty of the range officer to investigate and if he is convinced

that the shot or shots complained of were not fired by the competitor to whom the target was assigned, he shall ring and initial the shot or shots and they shall not be counted."

"Each competitor shall provide himself with a loading block for use on the firing line. When ready to fire he shall have in the block the exact number of rounds in the proposed string and shall use, in firing the string, only the ammunition taken from the block."

"In single-entry matches the only targets on the frame assigned to the competitor shall be the single-entry targets. Each competitor may fire re-entry targets before commencing each 10-shot single-entry string, if he so desires, but all such re-entry targets must be taken down before the single-entry record string is commenced."

NEW TARGET FOR 200-YARD SMALL-BORE

The last action taken by the Executive Committee at its meeting was one which will probably have far-reaching effects both in the small-bore game and in the development of riflemen for the International Teams of the future. It has been realized for some time that the C-5 target was out of line with the development of accuracy in the .22-caliber rifles and ammunition, in addition to being out of line with the system of decimal scoring and zone targets used at 50 and 100 yards. There has been a rather general consensus of opinion to the effect that a zone target with a decimal count should be substituted at 200 yards for the C-5 target. The question as laid before the Executive Committee was to determine, first, whether a decimal count target should be substituted for the C-5, and second, if such substitution were made, whether the present 100-yard target should be doubled in size and used at 200 yards, or whether it would be preferable to take the 300-meter International target and reduce it to 200 yards. It was considered that a target of this type would also be suitable for use at 200 yards with the .30-caliber rifle; that the 200-yard small-bore game is to a considerable extent a distinct game from the 50- and 100-yard shooting; that the .22 is an excellent training weapon for free-rifle competition and many of the most promising International shooters are developing from the .22-caliber ranks. Therefore the Executive Committee adopted as the official target for 200-yard small-bore shooting the International type of target having the proper dimensions reduced from the standard 300-meter International target. *This new 200-yard small-bore target will be used in the long-range small-bore competitions at Camp Perry in 1928. It will be available for sale to clubs just as soon as the necessary target plates can be made up. It is hoped to have the target available by June 1.*

NEW SYSTEM FOR DISTRIBUTING CASH PRIZES

The Executive Committee adopted a new rule for the distribution of cash prizes at

the Camp Perry Matches. At the matches this year the winner will receive a gold medal, second high a silver medal, and the next eight men bronze medals. An effort will be made to obtain sufficient added money from various sources so as to provide not more than \$100 in any one match in addition to the regular cash distribution. This added money will be divided 50 per cent to the winner, 30 per cent to second high man, and 20 per cent to third high man. These awards of medals and added money will be made entirely on the basis of scores and regardless of whether the competitor is a Regular, National Guardsman, or civilian. *For the distribution of the regular N. R. A. cash prizes, however, competitors will be divided into three classes—Regular Service, National Guard, and civilian. R. O. T. C. and C. M. T. C. students will be considered as civilians. The cash prizes will be distributed on the basis of the amount of entry fees paid into the match by the particular class to which a competitor belongs. For instance, if in one match there are 250 Regulars, 550 National Guardsmen, and 550 civilians (which is about the proportion that usually holds) the Regulars will receive back in cash prizes 75 per cent of \$250, the National Guardsmen will receive 75 per cent of \$550, and the civilians 75 per cent of \$550. While this may quite conceivably lead to the situation of a civilian in twentieth place in a competition receiving more money than a Regular in tenth place, it is felt that the system is the only just one which can be followed in view of the fact that in this particular match the civilians will have paid in more than twice as much in entry fees as have been paid in by the Regulars. A system of this type has been advocated by the civilian and National Guard competitors for the past several years, and to the credit of the Regulars, be it said that they have been very ready and willing to agree to such a plan.*

COL. W. A. TEWES TO LEAD DEWAR TEAM

The Executive Committee named Col. W. A. Tewes, coach of last year's winning Dewar Team, to be team captain of the 1928 Dewar aggregation. Colonel Tewes has been notified of his selection for the job and will immediately undertake to start the development of another record-breaking team to retain the Dewar Cup in the United States for another year. An article by Colonel Tewes outlining his ideas in this direction is printed elsewhere in this issue of THE AMERICAN RIFLEMAN.

NEW TROPHY FOR COLLEGE RIFLEMEN

Some time ago there was turned over to the Association \$459.28 by the New York Plattsburg Rifle Club to be used in any way that the Association might see fit for the promotion of rifle-shooting in the United States. Inasmuch as there is no regularly organized and consistent C. M. T. C. rifle training carried on throughout the year, it was felt to be appropriate to use this money
(Continued on Page 23)

The Old Colt Revolving Rifles

By Paul B. Jenkins

Historian, the Nunnemacher Collection, Milwaukee Public Museum

THE present generation of riflemen—with splendidly made repeating arms of combined strength and almost foolproof simplicity of mechanism and operation; using ammunition even more simple and not too expensive; the best such guns, cartridges and sights capable (if the man behind the gun can do his part) of hitting a dinner plate at a thousand yards; with nonfouling ammunition beginning to be available in every caliber and certain to be speedily of universal use—these fortunate men, old or young, have practically not the slightest idea of the gun difficulties of earlier periods, the ingenuity of firearm devices of other days, and the accomplishments of their predecessors with arms now regarded as crudities fit only for some museum.

We may well be deeply thankful for the comparative perfection of the best arms at our service today—arms that our grandfathers would have deemed miraculous beyond their fondest hopes or wildest imaginings. But we ought none the less to have some knowledge of the attainments or the ingenuities of our forefathers which showed what minds like theirs could do with the task of using separate powder, balls and percussion caps, devising arms to use these with a success that made the world of their day not only "sit up and take notice" but even consider that further arms' perfections were inconceivable.

Among the most notable, ingenious and deservedly honorable guns of the past were the best models of the Colt revolving-cylinder repeating Army muskets, carbines, sporting rifles and shotguns, all of which attained their highest development in the decade from 1855 to 1865, were the most famous, effective and coveted repeating arms of the percussion period, and were rendered obsolete only by the invention of the metallic cartridge.

Everyone knows the modern revolver. Some even know a little of its history: its invention in the boyish mind of sixteen-year-old Samuel Colt during a youthful experience as a sailor before the mast on a long trip in a sailing vessel from Boston to Bombay and return 97 years ago this year. A few know something of the thrilling story of its subsequent development, its successes first won against the Indians, buffalos and border ruffians of the West, speedily sweeping the world of arms with a demand that wore its inventor to an early death at 47 years of age, leaving a fortune, immense for the time, of five million dollars, and an undying fame.

Yet few men alive today—even few of us Americans, who ought to have an enormous pride in our country's great gun history—know anything of the once famous Colt revolving-cylinder "long arms," as historians, scientists and collectors are accustomed to designate *guns*, to distinguish them from pis-

tols and one-hand arms of every sort. Yet those forgotten arms were regarded by the hunters and military experts of both the New World and the Old as the highest conceivable perfection of firearms construction and effectiveness. To know something of these remarkable weapons ought to be part of every American's knowledge and pride in his country's unrivaled history.

The idea of a revolving cylinder as the essential feature of a repeating gun, as distinguished from a pistol, was in the young inventor's mind from the first. As early as 1837, before the inventor was 23 years of age, he succeeded in having three such revolving-cylinder guns—a musket, a rifle and a carbine—tried by a Government board at West Point. The decision was against their adoption, one of the most stupid of the reasons being that "flint arms were good enough!" but it is true that these first pieces were hastily and not too strongly made. Undaunted, the young inventor took all he had on hand and went straight to the scene of the only war available—that with the Seminole Indians in Florida—where he had no difficulty whatever in impressing both friend and foe with the desirability of a rifle that could be fired seven times without being taken from the shoulder. Fifty more were accordingly ordered of him by Government authorities "at the front." The red bandits of the Everglades were so taken aback by the appearance of these very "bad-medicine" guns in the hands of their pursuers that those who survived soon gave up, and the war came to an end. So, unfortunately, did the demand of the time for the Colt repeating long arms.

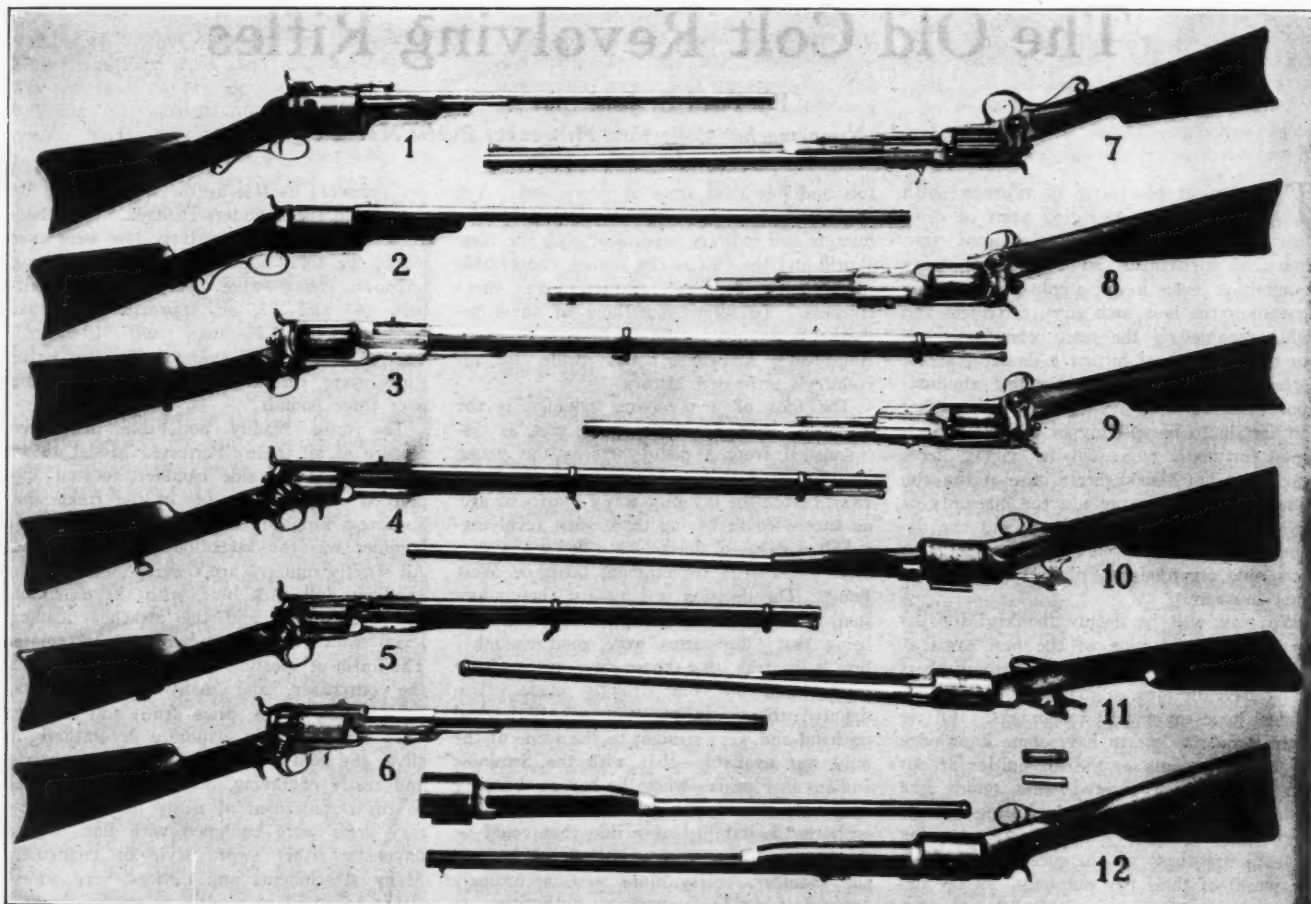
Colt kept at it, however, and at times in the next 18 years he produced improved models of revolving rifles (Models 1839 and 1850), and in 1855, with the ingenuity and construction skill of Elisha K. Root, his justly famous inventor, designer and superintendent of construction (who became president of the company after Colt's death), he brought out a "Perfected Model," which, with a few later additions (Models 1856 and 1857), became the standard form in which were made the subsequent total of some 7,000 military rifled muskets, military rifles, carbines, sporting rifles, and shotguns.

All told, these rifles are known to have been made in the following calibers: .69, .56, .54, .44, .43, .38, .36 and .24; and in varying number of chambers per cylinder, from five to eight, depending, of course, upon the caliber. From the first, as early as 1837, it was Colt's intention that a soldier using his rifle should carry on his person at least four extra cylinders, loaded and ready for insertion in the piece, thus giving him a fire ability of from twenty-five to forty successive shots (depending upon the number of chambers

per cylinder) as fast as the trigger could be pulled and the cylinders changed. The shotguns—of which comparatively few were ever made, the total number manufactured being unknown today—were offered in two calibers—.60 and .75, or, approximately, what we today call "20-gauge" and "10-gauge." The five-chambered cylinders of the latter gauge were certainly huge affairs, weighing over three pounds.

The most readily noticeable distinctive feature of all these "Perfected Model 1855" guns is the high side hammer, located and pivoted on the right side of the frame but striking a nipple in line with the bore. This hammer was the invention of E. K. Root. All strictly military arms were finished in an excellent dull dark blue, with the exception of the hammer and the attached loading lever, which were case-hardened in colors. The finish of sporting rifles was optional with the purchaser, and many special orders, presentation pieces, prize arms, and the like were turned out in elaborate decorations of silver and gold ornamentation and appropriate and costly engraving, many such being gifts to royal sportsmen of many nations. Military arms were equipped with fine, strong bayonets, either sword style or triangular. Many attachments and devices were added either to standard models or special-purpose guns, among them an oiling attachment for putting a drop of oil on the balls in the chambers; "double," "set" or "hair" triggers; and full-length, 3-foot telescope sights, the tube longer than the barrel itself, on rifles used by Union sharpshooters in the Civil War. One oddity, as it seems to us today and which has puzzled many a spectator scrutinizing a piece in a museum case, was the forming of the brass of the trigger-guard tangs into deep finger notches both behind and in front of the guard. Such notches behind the guard are recognized by some gunners as extra supports or grips for the fingers of the trigger hand, as on some Schuetzen and similar rifles, even of great antiquity. But what are those tang notches for in front of the guard? The answer is that they are for the fingers of the right hand to rest in when the thumb is in the act of cocking the high hammer, affording an added grip and leverage for the long reach and pull of the cocking thumb.

It has been the undeserved fate of these interesting old guns, as mentioned by more than one insufficiently informed and hastily writing "historian," to be described as fearfully dangerous to the shooter from the allegedly almost inevitable occurrence of more than one chamber being fired by the flame from the intentionally fired charge entering one or more of the neighboring chambers and setting these off as well. It is un-



1 and 2, improved specimens of the early Colt revolving rifles, Model 1836, caliber .38, for either military or sporting use. These pieces embody a number of improvements on the earliest models, which were hammerless and had separate finger devices for rotating the cylinder. Nos. 3 to 9 represent the Perfected Model 1855, with the E. K. Root side hammer. Nos. 3, 4, and 5, military rifled muskets. It will be noted that No. 4 has the spurs on the trigger-guard, as described, for assisting in cocking the high hammer. No. 6, Rifle designed for either sporting or military carbine use. Has the trigger-guard spurs. No. 7, High-grade hunting rifle. No. 8, Cavalry carbine. No. 9, Rifle intended for either military carbine or sporting use. Nos. 10, 11, and 12 are not Colts, but represent the curious, interesting and once popular Roper revolving-magazine system of the latter '60's and early '70's. Shown as representing probably the highest development of the revolver idea, as it used its own metallic, reloadable cartridges. Some models had interchangeable rifle and shotgun barrels (see No. 12). No. 11 and the extra barrel for No. 12 have the "Roper detachable choke" portion on the muzzle. S. H. Roper's patent, April 10, 1866. The mechanism had the unique feature of carrying the cartridge from the magazine, as well as firing it, after the trigger was pulled! The Roper was the first repeating shotgun of the metallic-cartridge period. Very few of these guns exist today. Made by the Roper Repeating Arms Co., Amherst, Mass. Photograph by courtesy of the Milwaukee Public Museum.

doubtedly the case that such an accident was not impossible in the earliest models of these guns, and they were denounced accordingly by a famous English rifleman, sportsman, "expert" and writer of their day, the noted "Frank Forrester," whose every word was law itself to English sportsmen for many a year. Unfortunately his criticisms have been followed by many English writers, and even an American or two, down to the present day—among them even such justly famous authorities as Lieutenants Ommundsen and Robinson and Maj. H. B. C. Pollard. The latter even goes to the length of saying that "his (Colt's) wretched compatriots to whom the arms were issued had their left hands blown away!" Yet in their own day and time this matter was elaborately discussed in print by the best authorities, both English and American, and it was almost universally agreed that such occurrence, at least with the "Perfected Model 1855," was impossible, "even if the chambers were filled with loose powder and then one of these fired!" (The writer doesn't mind saying, however, that while he has taken all sorts of risks in ex-

perimenting with old guns, you will kindly excuse him from trying that last.) The noted English expert, Lieut. Hans Busk, of the Victoria Rifles, considered Colt's rifles unsurpassed and wished them adopted by the British Army; and with his own had hit a 24-inch circle at 400 yards 48 times out of 50 shots. H. W. S. Cleveland, a noted American rifleman and hunter in Virginia in the 50's and 60's, stated that in 3,000 shots with one of these rifles he had discovered no reason to consider them anything but completely immune to any such accident. Yet a well-known American recent writer says that "when used in the Civil War the soldiers in all branches of the service disliked them exceedingly on account of * * * the fearful recoil when several chambers went off at once"—which event, it ought not to be necessary to point out, would certainly shatter the piece and give the shooter, if not oblivion itself, yet cause for something more than a "dislike" for "the fearful recoil."

The construction of these guns, like that of all the Colt revolvers, had one safety feature which was regarded as so unique and superior

that it was among Colt's insinuations from their first production—that of an appropriately shaped stud between the nipples, which did the double duty of preventing the flash from one cap from igniting another, and of affording a rest for the hammer when uncocked and in the down position, thus insuring against accidental discharge even were the arm to be dropped, hammer down. It was no quick task to load the chambers of any revolver arm of that day with loose powder, wadding, balls, caps, and often melted grease poured in to lubricate, hold, and seal the ball, or even with the paper cartridges often used, so that it was customary to fill all the chambers for possible use. It is only the ease with which our modern cartridges are readily inserted or removed that leads us to practice the safe device of always keeping one revolver chamber empty and the hammer down on it, thus securing that safety in case of a fall, on which Colonel Colt in his patent specifications laid so much stress.

Prior to the Civil War, United States Government manufactures were by no means so superior to the general run of commercially



Y
e
C

U
N
I
T

made products as is the case today, and the efficiency and execution of Colt's rifles readily surpassed the same characteristics in Government weapons, as might certainly be imagined of the period when Army authorities could decide that "flint arms were good enough." The bullet and chambers of the cylinders were made two one-hundredths of an inch larger than the bore into which the ball was delivered, thus securing a tight fit of the bullet to the rifling. Most of the rifles were given seven grooves and an increasing or "gain" twist. The English marksman's placing 48 out of 50 shots in a 24-inch circle at 400 yards was uncommonly good shooting then, and not at all bad today. Cleveland considered that, with open sights, a good shot ought to put any 10 consecutive shots from one of these rifles into a 9-inch ring at 200 yards. For penetration, he states that this was "superior to that of any other gun using the same weight of powder and lead," and at least a third greater than that of the common rifled musket of the day. Many English travelers and hunters in Africa—the two Chapmans, Green, Holden, etc.—used Colt rifles, notably in the big .56-caliber. These had a range of 1,000 yards, and in a test for combined range and accuracy had astonished spectators by killing a pelican at 680 yards. Capt. R. B. Marcy, U. S. Army, whose "Handbook for Overland Expeditions" was the widely purchased and eagerly studied textbook of every west-bound pioneer and hunter of the 50's and 60's, said of the Colt revolving rifle: "It is the most reliable and

certain weapon to fire that I have ever used, and if I were alone upon the prairies, and expected an attack from a body of Indians, I am not acquainted with any arm that I would as soon have in my hands as this." (The wholesale factory price of the Colt rifles was \$45, and of shotguns, \$50.)

There appears, unfortunately, to be no known record of the work of the Colt revolving shotguns. Probably there were too few of them made to attract any great attention to the matter; besides which, until recent years American shotgun users knew very little, and thought very rarely, about the actual efficiency and "pattern" of a shotgun, anyway. As I own one of these old guns I hope eventually actually to test it and see what it really will do with all the No. 6's or 4's that its big chambers will hold.

The eventual and speedy obsolescence of the Colt revolving long arms was brought about by two facts. One was the undeniable certainty and annoyance of a most emphatic side blast of flame at the junction of the cylinder and the barrel, especially in the larger calibers, as the .69-caliber musket style, with its big bullet driven by a charge of 100 grains of black powder into a rifle bore two one-hundredths of an inch smaller than itself, undoubtedly effecting a terrific sidewise gas leakage in spite of the closest possible approximation of the faces of the cylinder and the breech end of the barrel. One fancies that on firing such a piece in the dark there would be seen a burst of flame around the whole junction of cylinder and

barrel. Careless placing of the left hand in firing one of these Colt guns might easily lead to its injury by this blast. A feature which Sawyer points out was the fact that the explosion with its blast and bang occurred extremely close to the face, something that many a shooter would fancy extremely little—I think I would be among 'em—but which many users seemed not to mind in the least. The second fact was the invention of the metallic cartridge in the 60's, with its self-contained or "fixed" ammunition. Its adoption swiftly effected the retirement of all muzzle-loading and loose-ammunition arms as fast as the new weapons could be produced, while their steady improvement brought in that new era of firearms whose unprecedented efficiency, range and accuracy has been steadily developed in the ensuing two generations to the magnificent weapons of today.

It may be added, finally, that the value of these old Colt revolver long arms is steadily increasing. Just after the Civil War they were sold for almost nothing, as so much junk only, with the new guns and ammunition being universally adopted. Today one in factory-perfect condition might easily command \$200 from any keen collector, and if in working order but only halfway decent appearance will still bring from \$100 upward. I had to pay the price of a new gun for mine; but it was worth it to any man who loves the guns that have played their staunch part in making his country what it is today.

Changes In Match Regulations

(Continued from Page 20)

to purchase a trophy and distinctive medal for award to the college riflemen, R. O. T. C. and otherwise, who today are largely carrying on along the lines which have been developed as a result of the early Plattsburg camps for the interesting of the civilian population of the United States in the matter of national preparedness. The Executive Committee accordingly authorized the purchase of a distinctive trophy, to cost approximately \$400, and a new medal die which will take the balance of the available fund, the trophies and medals from the new die to be awarded in the N. R. A. Intercollegiate Championship with the Service rifle. This match, started several years ago on the ranges of the Naval Academy, at Annapolis, has grown to such an extent that this year it has been divided into two sections, one being fired at the Naval Academy Range and the other under the auspices of the University of Cincinnati, on the Ohio National Guard Range at Harrisburg, Ohio. With the added incentive furnished by a splendid new trophy and special medals, it is expected that this match can be expanded next year so as to permit college riflemen in all parts of the United States to participate.

THANKS TO MR. HEARST

The Executive Committee moved a vote

of thanks to Mr. William Randolph Hearst for his sportsmanship in agreeing to underwrite the expenses of the civilian members of this year's International Rifle Team, and directed that Mr. Hearst be notified of the formal appreciation of the Association of his generosity.

NOTICE

THE book "Amateur Gunsmithing" is no longer available through either the N. R. A. or the Small Arms Technical Publishing Co. Please do not send in any more orders for this book, but wait for Clyde Baker's new book, "Modern Gunsmithing," a remarkable work of more than five hundred pages, which will be brought out by the Small Arms Technical Publishing Co. some time in July.

MODERN-BOND MAKES CHANGE IN SIZER-LUBRICATOR

THOSE reloaders who are familiar with the Bond Sizer-Lubricator will be interested to know that this efficient little machine has been rendered still more nearly perfect by two slight changes. One of these is the employment of heavier material for the two sliding rods which serve as guides for the crosshead which carries the bullet plunger. Rigidity and perfect alignment of these parts are essential to accurate bullet sizing, and the new guide rods provide

ample strength at this vital point. The second change lies in the use of longer pins on the under side of the grease piston. These new pins get a firmer grip on the grease underneath, and permit greater force to be applied to the piston without the latter turning with the screw. This results in a higher working pressure on the grease and a very fast handling of bullets by the machine.

COLONEL COWARD APPOINTED DIRECTOR CIVILIAN MARKSMANSHIP

IN ACCORDANCE with the policy of the War Department of not re-appointing officers for a second tour of duty in Washington, Col. G. C. Shaw, the present Director Civilian Marksmanship, whose tour expires June 27, will be superseded by Col. J. M. Coward, Coast Artillery Corps. Colonel Coward is known to many of our readers for his genial and likeable disposition, as well as for his efficiency as Statistical Officer of the National Matches.

PAGE MR. KELLMER

I AM HOLDING an Expert medal for D. F. Kellmer, of the old L. A. Rifle and Revolver Club, who changed his address and did not leave a forwarding address. Said medal was returned to me a year ago and since then I have not been able to get in touch with him to give him the medal.

E. C. CROSSMAN.



Conducted by C. B. Lister

FOURTH OF JULY AT SEA GIRT

JUST one month more and the clan will be gathering at Sea Girt for the annual Small-Bore Shoot. As previously announced in *THE AMERICAN RIFLEMAN*, this annual and permanent feature of Sea Girt will be held this year from June 30 to July 4, which means Saturday to Wednesday, inclusive. By the time this reaches the eyes of the shooters, programs will be in the mails.

Analyzing this year's changes in the program we find that quite a few changes have been made. First, and most important of all, is that N. R. A. rules will govern the shoot. The Eastern Team Match, also the Palma Team Match conditions have been changed again to permit a club to enter one or more teams instead of only one team from each club, as heretofore. Another important change is that the Interstate Team Match conditions have been changed to the extent that this year, instead of shooting over the Palma course, as was the case last year, the match will consist of 20 shots at 50 and 20 shots at 100 yards, which is the Dewar course.

There will be more prizes than ever before. Dr. Proudman has donated a new bronze trophy, valued at \$350, for the Palma Team Match. The old trophy, having been badly damaged in its six years of traveling from one club to another, has been permanently retired and will hereafter occupy a place of honor in the clubhouse at Sea Girt, properly inscribed to acquaint posterity with the fact that this was one of the first trophies shot for at Sea Girt over the Palma course.

There will be more medals than heretofore in the team matches, the Outers' Club of Mount Vernon, N. Y., having donated several of these for the team matches. The Manhattan Rifle and Revolver Club, of New York, will again furnish the coveted Palma Gold Medal for High Individual in the Palma Match.

A growing feature of the social side of Sea Girt in July is the number of shooters who bring their families via automobile and occupy the squaw camp. This year arrangements will be made to increase the accommodations of the squaw camp to take care of the larger number of shooters and their families.

Those who desire a copy of the new program should write to General Bird W. Spencer, People's Bank Building, Passaic, N. J.

JACKSONVILLE RIFLE CLUB NOTES

THE facilities for rifle-shooting in Jacksonville are second to none in any city in the country, due to the fact that all the clubs have access to the State rifle range at Camp Johnston, one of the finest outdoor rifle ranges in the United States, and located about 10 miles out of Jacksonville. There will be found a spacious range administration building, and 150 targets, at ranges from 200 to 1,000 yards. There are also small-bore rifle ranges, from 50 to 200 yards, and pistol ranges, consisting of 15-, 25- and 50-yard firing points.

Two of the important outdoor matches to be fired in the next sixty days are the Mid-Range Championship of Florida, for the Gus Jordahn Cup. This is an individual match, and any member of a rifle club in Florida in good standing may participate. The match will be fired on the 27th of May, on the home range of the member participating. The course consists of two sighting shots and ten shots for record at each of the ranges of 300, 500 and 600 yards; any rifle of .30 caliber; any sights. This permits the use of telescopic sights if desired. The possible over the course is 150 points. Lieut. Col. Chester H. Wilson, of the Jacksonville Rifle Club, is the present holder of the cup, won in 1927 with a score of 149 x 150.

The other match—the classic of the year—will be the firing of the Bradley Cup Match at West Palm Beach. This is also an individual competition for the famous Bradley Cup, valued at \$2,500, and must be fired on the West Palm Beach Rifle Club range. The arm used is the .30-caliber Springfield Army rifle, strictly "as issued," and the course consists of two sighting shots and fifteen shots for record at ranges of 300, 600 and 1,000 yards, making a total of 225 points possible over the course. This cup has left the confines of Palm Beach County only once, when Norman M. Hill, a member of the Jacksonville Rifle Club, won it in 1923. The J. R. C. missed it last year by a close margin, when S. B. Kitchen finished one point behind the West Palm Beach winner.

The program of summer firing also includes several intercity matches between the Jacksonville clubs and the club at St. Augustine. These are small-bore outdoor matches fired at 50 and 100 yards.

SCHEDULE—COMING EVENTS

National Matches (High-Power, Small-Bore, and Pistol), August 26 to September 16, Camp Perry, Ohio.
 Eastern Small-Bore Tournament (Small-Bore), June 30 to July 4, Sea Girt, N. J.
 United Services of New England Matches, Wakefield, Mass., August 11-19.
 Regional Matches, Ft. Missoula, Mont., June 5 to 10.
 New York State Shoot (Service Rifle), June 3 to 9, Peekskill, N. Y.
 Illinois State Rifle Association and Chicago Rifle Association Match, Ft. Sheridan, Ill.
 Mid-Range C. R. A. Match (30-caliber), June 10.
 Long Range C. R. A. Match (30-caliber), June 17.
 Army Qualification Course A, July 1.
 Small-Bore Wimbledon, July 4.
 Long-Range (1,000 yards) Championship, July 4.
 State Shoot and Civilian Team Selection for National Matches (consisting of the Wrigley, Leonard, Herald, Tribune and Black Trophy Matches), July 14-15.
 Fort Pitt Rifle Club, Pittsburgh, Pa. (To get to range: Any street car running to Wilkinsburg will transfer you to a Verona car. Get off at Laketon Road and walk up Laketon Road to Graham Boulevard, turn left on road to Wilkinsburg Gun Club, then downhill to range. Pennsylvania Railroad will place you within one square of Verona car, or take taxi from station direct to grounds.)
 Small-Bore Leech Cup Match, June 2.
 Qualification and Members' Match, June 9.
 300-Yard Match, June 16.
 Norwood Johnston Cup Match, June 23.
 50-Yard Rising-Bear Revolver, June 30.
 100-Yard Small-Bore, June 30.
 100-Yard Burglar (Pistol) Match, July 7.
 300-Yard Prone (30-caliber) Match, July 14.
 Running-Deer Match, July 14.
 Small-Bore Tournament, Tony's Nose Range, near Lima, Ohio, June 10.
 Connecticut State Rifle Association Matches, June 2.
 National Rifle Day, .22-caliber, at Bridgeport, June 17.
 Bridgeport Rifle Range, High-Power Matches.
 59th Annual Shooting Tournament, Southern New England Rifle Association, Taftville, Conn., June 22-23.
 Western States Small-Bore Tournament, Los Cerritos Range, Long Beach, Calif., June 22, 23, and 24.

SCHEDULE OF N. R. A. MATCHES, CAMP PERRY, 1928

Wimbledon Cup, 7:30 a. m., Monday, September 3.
 600-Yard Any Rifle, 7:30 a. m., Monday, September 3.
 Navy Match, 7:30 a. m., Monday, September 3.
 Members' Match, 1 p. m., Monday, September 3.
 Leech Cup Match, 800-yard stage, 7:30 a. m., Tuesday, September 4.
 Leech Cup Match, 900-yard stage, 9:45 a. m., Tuesday, September 4.
 Leech Cup Match, 1,000-yard stage, 3 p. m., Wednesday, September 5.
 Wright Match, 7:30 a. m., Tuesday, September 4.
 Scott Match, 8:30 a. m., Tuesday, September 4.
 President's Match, 200-yard stage, 7:30 a. m., Tuesday, September 4.
 President's Match, 600-yard stage, 7:30 a. m., Wednesday, September 5.
 President's Match, 1,000-yard stage, 8:30 a. m., Wednesday, September 5.
 Rapid Fire Match, 200-yard stage, 1 p. m., Tuesday, September 4.
 Rapid Fire Match, 300-yard stage, 1 p. m., Wednesday, September 5.
 Crowell Match, 7:30 a. m., Wednesday, September 5.
 Marine Corps Cup, 600-yard stage, 7:30 a. m., Thursday, September 6.
 Marine Corps Cup, 1,000-yard stage, 8:30 a. m., Thursday, September 6.
 Chemical Warfare, 7:30 a. m., Thursday, September 6.
 Port Clinton Trophy, 200 yards, 7:30 a. m., Friday, September 7.
 Port Clinton Trophy, 600 yards, 1 p. m., Friday, September 7.
 Enlisted Men's Team Match, 200 yards, 7:30 a. m., Friday, September 7.
 Enlisted Men's Team Match, 600 yards, 1 p. m., Friday, September 7.
 Championship Regimental Team, 200 yards, 9 a. m., Friday, September 7.
 Championship Regimental Team, 600 yards, 2:25 p. m., Friday, September 7.
 Civilian Interclub, 200 yards, 9 a. m., Friday, September 7.
 Civilian Interclub, 600 yards, 2:25 p. m., Friday, September 7.
 A. E. F. Roumanian, 200 yards, 10:30 a. m., Friday, September 7.
 A. E. F. Roumanian, 600 yards, 3:50 p. m., Friday, September 7.
 Herrick Team Match, 800 yards, 7:30 a. m., Saturday, September 8.

Herrick Team Match, 900 yards, 9 a. m., Saturday, September 8.
 Herrick Team Match, 1,000 yards, 10:30 a. m., Saturday, September 8.
 Infantry Team Match, 1 p. m., Saturday, September 8.
 (Re-entry and unsquadded .30-caliber matches (and "Skidoos") are programmed, and may be fired whenever targets are available, any time during the period August 31 to September 9.)

SMALL-BORE MATCHES

Preliminary Dewar Matches (two matches), 7:30 a. m., Sunday, September 2.
 Individual Short Range, 1:30 p. m., Monday, September 3.
 National Small-Bore Championship (an aggregate of all single-entry small bore matches).
 Interclub Long Range, 1:30 p. m., Tuesday, September 4.
 Individual Long Range, 7:30 a. m., Tuesday, September 4.
 Short-Range Team, 1:30 p. m., Wednesday, September 5.
 Small-Bore Wimbledon, 7:30 a. m., Thursday, September 6.
 Camp Perry Individual, 7:30 a. m., Thursday, September 6.
 Short-Range Two-Man, 1:30 p. m., Friday, September 7.
 Long-Range Two-Man, 7:30 a. m., Friday, September 7.
 The East and West Team Match, 7:30 a. m., Sunday, September 9.
 International Railwaymen's Match, Sunday, September 9.
 International (Dewar) Team Match, Sunday, September 9.
 (Small-bore unlimited re-entry (and "Skidoo") matches are programmed, as usual, and will be fired during the period August 31 to September 9.)

JUNIOR CAMP

(The N. R. A. Junior Camp and Junior Rifle Corps Matches will be conducted during the week August 26 to September 1.)

PISTOL MATCHES

N. R. A. Individual Pistol Championship, N. R. A. Pistol Team Championship, Individual Police Pistol Match, and Police Pistol Team Match. (Dates to be announced on bulletin board at Camp.)
 .22-Caliber Slow-Fire, 7:30 a. m., Thursday, September 6.
 Slow-Fire Pistol, 7:30 a. m., Thursday, September 6.
 Timed-Fire Pistol, 7:30 a. m., Friday, September 7.
 Rapid-Fire Pistol, 7:30 a. m., Friday, September 7.
 (Unlimited re-entry pistol (and "Skidoo") matches are programmed, as usual, and will be fired during the period August 31 to September 9.)

THE NATIONAL MATCHES

National Individual Rifle Match, Tuesday-Wednesday, September 11-12.
 National Rifle Team Match, Friday-Saturday, September 14-15.
 National Individual Pistol Match, 7:30 a. m., Monday, September 10.
 National Pistol Team Match, 1:30 p. m., Monday, September 10.

Standing, as defined in the program (without body rest or sling), is specified for all high-power matches except free-rifle events.

Following is a schedule of N. R. A. postal matches yet open but most of which close June 10.

SMALL-BORE SECTION

Name of match	Entries close	When fired	N. R. A. members	Club members
American Individual Dewar Match (iron sights)	June 10	June	\$1.00	\$1.00
Individual 200-Yard S. B. Spring Championship	June 10	June	1.00	1.50
Small-Bore Qualification Course (any sights)	Never	Any Time	1.00	1.00
Small-Bore 2-Man Team Match (any sights)	June 10	June	2.00	2.00
Dewar Course 2-Man Team Match (iron sights)	June 10	June	2.00	2.00
Tyro Team Small-Bore Match (iron sights)	June 10	June	....	5.00
Small-Bore-Team Spring Championship (any sights)	June 10	June	....	5.00
Spring Dewar Course Team Championship (any sights)	June 10	June	....	5.00

HIGH-POWER SECTION

Name of match	Entries close	When fired	N. R. A. members	Club members
1,000-Yard Individual Match	June 10	June	\$1.00	\$1.50
600-Yard Individual Match	June 10	June	1.00	1.50
High-Power Two-Man Team Match	June 10	June	2.00	2.00
.30-06 Rifle Interclub Spring Championship	June 10	June	....	5.00
Obsolete Rifle Interclub Spring Championship	June 10	June	....	5.00
Free-Rifle Individual Spring Championship Match	July 10	July	1.00	1.50
Individual Schuetzen Match	July 10	July	1.00	1.50
Free-Rifle Qualification Course	Never	Any Time	1.00	1.50

PISTOL AND REVOLVER SECTION

Name of match	Entries close	When fired	N. R. A. members	Club members
Individual Police Pistol Spring Championship	June 10	June	\$1.00	\$1.00
Rapid-Fire Pistol Match	June 10	June	1.00	1.50
Individual Spring Pistol Championship	June 10	June	1.00	1.50
N. R. A. Revolver Spring Pistol Championship	June 10	June	1.00	1.50
N. R. A. Spring .22 Pistol Championship	June 10	June	1.00	1.50
Free-Pistol Match	June 10	June	1.00	1.50
N. R. A. Pistol Qualification Course	Never	Any Time	1.00	1.50
Spring Interclub Pistol Team Championship	June 10	June	....	5.00
Police Spring Pistol Team Championship	June 10	June	....	5.00

HANDGUN FRATERNITY LOSES OLD FRIEND

IT WAS with very real regret that we learned recently of the death of our old friend, Dr. R. J. Mullikin, of 1401 West Lanvale Street, Baltimore, Md., about midnight of Saturday, March 10. The news will come as a shock to the many members of the handgun fraternity, with which Dr. Mullikin had long been identified. The cause of death was apoplexy, brought on or hastened, probably, by the shock and grief resulting from the loss of his son last June.

In 1908 Dr. Mullikin was elected a member of the Baltimore Revolver Club; and until later years, when his eyesight began to fail, he was a very fine shot and a member of the league team. He was president of the club for several years and also held the office of secretary-treasurer at one time. He was vice president of the United States Revolver Association from 1912 to 1916.

All those privilege it was to know Dr. Mullikin personally were won by his sincere and kindly disposition. He was a booster for pistol-shooting second to none, and was one of those comparatively rare persons to whom one instinctively turns for information and advice. Whenever a member of the Baltimore Club encountered a stranger who was interested in handguns one of the first things he was apt to do was to send the new acquaintance out to have a visit with Doctor Mullikin. The Doctor always had a kindly welcome for all who thus appeared, unannounced, upon the scene; and if additional enthusiasm were needed one of these visits usually supplied it.

It is hard to lose a friend like this, for Doctor Mullikin scored high not only at the pistol target, but in the less spectacular, humdrum everyday affairs of life as well.

HELP FOR THE NEW CLUB

TO THE uninitiated the problems connected with the organization of a new rifle club are apt to assume unwarranted proportions at times; and no doubt a certain number of new clubs fail to get under way each year because of the imaginary difficulties which appear to beset the undertaking. Were it possible for the various individuals of these different aspiring groups to sit in council for a brief hour or so with some expert veteran of the game, many fancied difficulties blocking the way to the launching of a new outfit would be held up in their true light and would cease to be deterring factors. Unfortunately, not every community numbers among its members the veteran rifleman whose services would prove such a boon. This, however, is not such a great handicap when a good book—brief, clear and to the point—is to be had.

Such a book has just been brought out by the Sporting Arms and Ammunition Manufacturers' Institute. The book has been written by Colonel Whelen; and those who are familiar with the Colonel's writings know that no other man in the country is better qualified to produce a book of this kind. The same exactness, simplicity, and thoroughness which characterize Colonel Whelen's replies to beginners in the "Dope Bag" are found in the pages of the new "Small-Bore Rifle Handbook." In its nine chapters the beginner is told how to organize a club, build a small-bore range, select proper equipment, and take up training which, if faithfully followed, will make of him a fine shot. He is told in clear, simple language exactly what he needs to know to get started, without anything else which might distract or confuse him.

After a very good Introduction the chapters run: 1, "Equipment"; 2, "Marksmanship"; 3, "Aiming"; 4, "The Firing Position"; 5, "Trigger Squeeze"; 6, "Sight Adjustment"; 7, "The Care of The Rifle"; 8, "Targets and Rifle Ranges"; 9, "The Rifle Club." The book is generously illustrated, Col. W. A. Tewes posing the different firing positions.

Persons interested in organizing a new rifle club can obtain a copy of this little book by writing to any of the arms and ammunition companies, or to the N. R. A.

OSSINING RIFLE CLUB, INC.

THIS being the time of the annual spring house-cleaning, the Ossining Rifle Club, Inc., thought it was a good idea to have a Junk Match. It was. Invitations were sent to all the members of the club and a limited number of members of neighboring clubs, with the result that over thirty shooters attended the match, some of them bringing their families, which is as it should be. The families had as good a time as the

shooters. Luncheon was served by the lady members of the club. The lunch and the service evidently were appreciated, judging by the way the food disappeared.

The gathering of the clan brought representatives from Brooklyn, Manhattan, the Bronx, New Jersey, Poughkeepsie, Wappingers Falls (Dad Crozier himself), Tarrytown, Pleasantville, Elmsford, and way stations. As usual, huddle parties were in session in all corners of the clubhouse, showing off the latest do-dads, whatnots and hickies, all of which were supposed to help the little lead pellet find the center of the bull's-eye. Maybe so. They would fondly kiss the bullet, aim long and carefully, and send it on its way with a prayer and good intentions. Would that pesky little pill plunk into the 10-ring every time? Ask the scorer.

The match consisted of twenty shots at 100 yards, outdoors, any .22-caliber rifle, any sights, with the following results:

1. Mackey, P. 196	13. Jerrell 189
2. Kelsey 195	14. Muntner, H. 189
3. Osgood 195	15. Myers 187
4. Smelter 195	16. Vroom 186
5. Sheldon 194	17. Miller 185
6. Vail 193	18. Yorán 185
7. St. John 193	19. Hilborn, Mrs. 181
8. Decker 191	20. Minnerly 179
9. Stevens 191	21. Amouroux 179
10. Hilborn 190	22. Crozier 168
11. Muntner, J. 190	23. Mackey, W. 149
12. Risley 190	24. Fitzgerald, Miss. . . . 101

OMAHA CLUBS SPONSOR I. W. L. SHOOT

AMERICAN LEGION and Omaha Rifle Clubs were the hosts to a successful and well-patronized "Free-for-all" Shoot at the Auditorium in Omaha, during the recent National Sportsmen's Show of the Izaak Walton League of America. The match was open to anyone, and no entrance fee was charged. Course was five shots offhand at 50 feet. Prizes were presented by local merchants and by sportsmen attending the show.

William M. Hagen, well-known secretary of the Legion Club at Omaha, and who, incidentally, was largely responsible for the success of the match, copped the first prize, a shotgun, by ringing up a score of 40 x 50. Otto A. Frentzel, of Wisner, Nebr., also turned in a 40, but was outranked by the "Creedmore count." Frentzel copped a camp stove for his second high score. Quite a lot of merchandise prizes were distributed to others who shot.

A CORRECTION

IN THE May issue of the RIFLEMAN, University of Cincinnati was listed as having won the South and West Inter-collegiate League Championship. It now appears that the University of Louisville won this championship with two wins and no defeats. Cincinnati won one and lost one to finish second.

FREE-RIFLE QUALIFICATION SCORES

SHOOTERS interested in the newly programmed Free-Rifle Qualification Match of the N. R. A. Outdoor Postal Program

will be glad to know that the necessary qualifying scores have now been determined. They are: For Expert, Free-Rifle Shot, 1,025; Sharpshooter, 985; Marksman, 950.

These scores are announced after a careful consideration of recent free-rifle scores turned in in the preliminary tryouts for the 1928 International Team. It is believed that while the scores as shown above appear a little easy not many unseasoned International riflemen will make the grade of Expert on first attempt.

As this event is the latest addition to the N. R. A. program, it might be well to mention here that the Free-Rifle Qualification Match is conducted on the same basis as the other postal competitions. Entrance fee is \$1 to all, and the Association furnishes a 300-meter target, score sheet and certificate on receipt of entry. Only the score sheet and certificate must be returned. Appropriate qualification badges are being provided as it is expected to make the new event a permanent fixture of the annual program of matches.

SANTA CRUZ RIFLE CLUB

WOULD like to shoot postal matches indoor, with any team using iron sights, 75-foot old-style gallery targets, N. R. A. Ten shots standing and 10 prone, 5 high men to count. We shoot every Monday night.

ED. FALCONER,

Sec'y, 125 Plateau Ave., Santa Cruz, Calif.

EARLHAM EVENS COUNT WITH DES MOINES

THE Earlham Rifle Club defeated the Des Moines Rifle and Revolver Club in a return match, 2,884 to 2,848. Des Moines brought up a nine-man team, and the match was fired 10 shots in each position on the new official 50-foot gallery targets. L. A. Roland was high man for Earlham, with a score of 349; and Herman Paul was high for Des Moines, with 347. Des Moines won the first match, fired March 4, with 3,145 to Earlham's 2,890, with a ten-man team.

NOTES ON THE N. R. A. OUTDOOR MATCHES

PRESENT indications point to another healthful season for the spring and summer postal competitions. Although the entry closing date of the early programmed individual matches has not passed at the time this is written, a large entry list in the matches already has been noted. It is confidently hoped that the 1928 outdoor matches, like the gallery events, will show an increase over the program conducted last year.

Competitors who already are entered in any of these matches, as well as shooters who expect to go into some of the competitions later, are urged to carefully read the following special notes and general information on the conduct of the matches:

In the case of all pistol and high-power rifle matches the fired targets need not be returned to the N. R. A.—only the score sheets and the certificates that are furnished

in these classes of matches should be returned.

In all small-bore matches, however, the fired targets must be returned to the N. R. A. for official scoring. Competitors are urged to refrain from writing on the targets, as fired targets when not written upon may be forwarded by fourth-class mail or (if over 8 ounces) by parcel post. Send the certificates by first-class (letter) mail and save postage by letting the targets come back at the cheaper postage rate.

The Standard American 200-Yard Small-Bore Target, which is also the 50-yard Standard American Pistol Target, is specified for the Schuetzen Match. One of these targets with score sheet and certificate is furnished with each entry; but as noted in the third paragraph above only the score sheet and certificate need be returned.

SUCCESSFUL INDOOR LEAGUE SEASON CLOSED AT BERKSHIRE

THE City Rifle League which was organized in Pittsfield, Mass., at the beginning of the past gallery season largely through the interest of the *Berkshire Eagle* closed its season with a get-together meeting at the Chamber of Commerce Offices.

The team shooting under the colors of the Sportsmen's Club won the City Series with a total of 22 victories and 3 defeats.

Capt. Arthur F. Paro, of the Sportsmen's Club, turned in the highest average score for the League series, with an average of 131. Lieut. G. W. Bradshaw, of the National Guard Team, was second individual, with an average of 129. Captain Paro received a gold medal and Lieutenant Bradshaw a silver medal for their work. George Adams, of the Sportsmen's Club, with an average of 128, and George Davenport, of the same club, with an average of 127, also received silver medals. A total of twenty-five medals were given out to the team members and individuals in addition to the silver Eagle Cup, which went to the winning team.

The final standing of the league was as follows:

	Won	Lost	Per cent
Sportsmen's Club	23	2	.920
Musketeers	20	5	.800
General Electric	17	8	.680
Eagle Publishing Co.	8	17	.320
National Guard	7	18	.280
Lions' Club	0	25	.000

RIFLE-SHOOTING GETS SOCIAL PAGE WHITE SPACE

THE Berkshire (Mass.) *Evening Eagle* on

March 31 gave its social lead story to rifle-shooting. A club was recently organized within the Y. W. C. A. at Berkshire. The young women, under the coaching of a male instructor, quickly learned the proper way to shoot, and subsequently have turned in some noteworthy accomplishments. The performance of the Burke sisters—Misses Ann and Margaret—who shot scores of 45 and 41 out of 50, respectively, at a recent meet, gave the social editor something to write about; and he did. We hope the *Eagle* will continue to be liberal with its shooting space.

TO BREAK THE MONOTONY

THE British have a system of rapid fire which has been popularly dubbed "the mad minute." Every competitor is allowed to fire as many shots as he can get off in a minute, the score being computed in the usual way. The Grass Lake Rifle Club tried out this same idea as applied to .22-caliber shooting, permitting competitors to fire as many shots as possible in two minutes, bull's-eyes only to count. H. H. Raby, Secretary of the Club, was the winner, with 9 bull's-eyes in 17 shots; Dr. Foust was second, with 8 bull's-eyes in 22 shots.

A little novelty shooting now and then is a good thing for any club, and "the mad minute" idea is one way of breaking the monotony.

PRIMGHAR CLUB SECRETARY SPONSORS POSTAL TEAM MATCH

O. R. HOMER, secretary of the Primghar, (Iowa) Rifle Club, is convinced that one of the best means of keeping alive interest in rifle clubs is through the medium of postal matches arranged between near-by clubs. Mr. Homer was responsible for the recent organization of the Three-positions Iowa Mail Match, and he reports favorably on the result of such competition. Handling the details connected with the conduct of the match, the Primghar secretary faithfully served the teams in this matter and, because of the apparent success of this preliminary competition, he is already making plans for the organization of a "real league" in Iowa which, it is expected, will be quite active when the 1929 indoor season opens this year. The seven teams which fired the recent match finished in the following order: Luverne, 1,439; Whiting, 1,427; Sioux City, 1,425; Primghar, 1,419; Sloan, 1,409; Remsen, 1,377; Lemars, 1,376.

FIRST RADIO RIFLE MATCH

IT IS a long, long way from Orange, N. J., to Portsmouth, Ohio, but on Saturday afternoon, April 14, 1928, the Y. M. C. A. Rifle Club Team, of Orange, N. J., faced that of the Buckeye State; yet each team shot on its home range. Radio annihilated the distance.

A. J. P. Pionnie, a member of the Orange team, originated the idea. It has never been done before to his knowledge. It required considerable time to locate a rifle club having the facilities of both a range and an amateur radio transmitting station. Finally the Portsmouth Y. M. C. A. was reached, and through the active and earnest co-operation of their secretary, Mr. E. M. Farris, arrangements were made. The Portsmouth "Y" is evidently an outfit that believes that railroad men should know how to shoot, as it is a railroad Y. M. C. A.

The Orange "Y" is known as 2-AFB radioally, and the Portsmouth call is 8-BBS. The latter is operated by John P. Bauer and is located close to the "Y," while the transmitter at Orange is located in the Y. M. C. A. Building and is connected to the rifle

range (also in the building) by private telephone. The operator at Orange is Mr. Thomas G. McCann, a member of the A. R. R. L. and a resident of the "Y." The scores were telephoned to the radio room as shot and the "radio hams" did the rest.

The distance between Orange and Portsmouth is about 500 miles, and it is only 50 feet from the muzzle of the rifle to the target, yet the messages took less time (by a very large margin) to go 500 miles than the bullets did to go 50 feet. The experiment was a complete success and was found to be a great improvement over the ancient, old-fashioned and archaic methods, such as telephone, telegraph, airplane, United States mail, and pony express.

The Orange Club got licked; but what of it? We put over the first radio match, and that is what we set out to accomplish, so we are all happy and realize that the two R's (rifle and radio) are a real worth-while combination.

Now, then, if any rifle club in the United States or Canada that boasts of a radio transmitting station, as well as a rifle range, cares to cross bullets over the ether with the Y. M. C. A. Rifle Club of Orange, N. J., at 75 feet preferably, all they have to do is to call 2-AFB on 60 meters at about 7 p. m. any evening and they will find "Ham" McCann wearing his sponges and listening intently for their peeps.

Following is the score:

Y. M. C. A. RIFLE CLUB, ORANGE, N. J.						
	Prone	Sit-Kneel-Stand	ing	ing	ing	Total
C. J. Andrews	100	45	48	32		225
S. E. Sargeant	100	49	40	38		227
M. W. Sargeant	99	46	50	31		226
A. J. P. Pionnie	99	45	45	37		226
Al. Jury	96	48	46	43		223
Total five high						1,137

Y. M. C. A. RIFLE CLUB, PORTSMOUTH, OHIO						
	Prone	Sit-Kneel-Stand	ing	ing	ing	Total
Poole	100	49	48	46		243
Farris	98	44	49	44		235
Seth	99	44	43	41		228
Fraley	98	46	43	41		228
Stark	96	45	47	37		225
Total five high						1,159

SUCCESSFUL CITY LEAGUE CONDUCTED IN AUBURN

A SERIES of ten indoor rifle matches for the small-bore championship of the city of Auburn, N. Y., have just terminated with a banquet in the State Armory in Auburn, at which over 100 riflemen of the city witnessed the presentation of a handsome silver wall plaque to the W. Mynderse Rice Post of the American Legion, winners of the city tournament.

Six clubs participated in the matches, three of them members of the National Rifle Association and the other three service teams of the National Guard of New York State.

This series caused a great deal of interest among shoot fans as well as outsiders and filled the Armory indoor range with spectators for every match of the tournament.

The teams entered were the Auburn Rifle Club (which has been in operation without a break for the past 30 years) the American

Legion, and the Prison City Rifle Club. The three service teams were Company I, 108th Infantry; Service Company, 108th Infantry; 2nd Battalion Headquarters Company, 108th Infantry. This battalion is commanded by Maj. Frederic S. Johnston, well-known captain of the New York State crack rifle team which topped all the National Guard teams at the National Matches at Camp Perry last year.

It is interesting to know that this tournament was run off under the supervision of Lieut. C. H. Spicer, Company I, 108th Infantry, without any argument or dissatisfaction on the part of individuals or teams, proving that riflemen are good sportsmen and that this kind of sport attracts the better class of men.



The results of the tournament were as follows: At the end of the tenth match the American Legion had won three matches, the Service Company three, Company I, 108th Infantry, two, Auburn Rifle Club two. Another match was then staged to shoot off the tie between the American Legion and Service Company with the following results:

The American Legion		Service Company	
108th Inf.		108th Inf.	
Rodney Moore	121	Sgt. Sam Gower	122
John Derby	119	Corp. Jos. Bates	117
Harold Preston	118	Pvt. Fred Laxton	115
Total	358	Total	354

The above individual scores are out of a possible 125 points, and are remarkable considering the strain under which these men shot in this particular tie match. The range was packed with spectators, and each man knew what he was up against and that the matches would be won by a small margin.

Up to the tenth match the high individual score was held by Sgt. W. X. Daley, Company I, 108th Infantry, with a total of 122 out of 125; but in the tie shoot-off Sgt. Sam Gower, Service Company gunner, cut

the bulls sitting and prone for two possibles, topping Daley, who slipped in a four in the sitting position.

The rifle clubs have decided to try and get other city rifle clubs to organize something along these lines next fall and at the termination of the city championship shoots to line up the two highest teams for the championship of New York State.

IOWA INDOOR STATE SHOOT, HELD AT IOWA CITY APRIL 6-8, 1923

By LIEUT. COL. M. C. MUMMA

ON ACCOUNT of the severe storm which visited all sections of Iowa during the period scheduled for the matches, it was impossible for anyone to make the trip by auto. Consequently this practically eliminated all outside teams except Cedar Rapids and Iowa City. The shooting was of high quality, and except for the bad weather the attendance would have been up to the limit of range capacity. Next year it is planned to hold these matches during Christmas vacation, when the roads will probably be in better shape.

RIFLE MATCHES

Match No. 1.—For National Guard Teams; 4-man team; 10 shots prone 10 standing. Won by Troop A, 113th Cavalry, 649.

Match No. 2.—For civilian teams; same conditions as Match No. 1. Won by University of Iowa R. O. T. C., 726; second, Wilton Rifle Club, 691; third, Cedar Rapids Rifle Club, 630.

Match No. 4.—Individual single-entry prone match for men in Service; 10 shots, prone. Won by Corpl. Arthur Baldwin, Troop A, 113th Cavalry, 99; second, Capt. W. J. Hayek, 113th Cavalry, 98; third, I. G. McQueen (Res.), Moulton, 96.

Match No. 5.—Individual single-entry standing match, men in Service. Won by I. G. McQueen (Res.), Moulton, 79; second, Capt. W. J. Hayek, 113th Cavalry, 67.

Match No. 6.—Individual single-entry prone match for civilians. Won by J. W. Dempster, University of Iowa R. O. T. C., 99; second, R. N. Weldy, University of Iowa R. O. T. C., 98.

Match No. 7.—Individual single-entry standing for civilians. Won by Steward Wilson, University of Iowa R. O. T. C., 84.

PISTOL MATCHES

Match No. 12.—Team match for National Guard Teams; 4 men; 25 yards; Service pistol; 10 shots, slow fire, 10 shots timed fire (30 sec.). Won by Troop A, 113th Cavalry (1st team), 345, 336, 681; second, Troop A, 113th Cavalry (2d team), 322, 270, 592.

Match No. 13.—Team match for civilian teams; same conditions as Match 12, except that any pistol or revolver larger than .22 caliber. Won by Cedar Rapids Team, 389, 362, 751; second, University of Iowa R. O. T. C., 333, 302, 635.

Match No. 17.—Commissioned Officers' Pistol Match; 25 yards; Service pistol; 10 shots timed fire (30 sec.), 10 shots R. F.

(15 sec.). Won by Capt. W. J. Hayek, Troop A, 113th Cavalry, 94, 91, 185; second, I. G. McQueen (Res.), Moulton, 93, 86, 179

NEW HAVEN POST-OFFICE EMPLOYEES HAVE ACTIVE CLUB

THE following letter from the Executive Officer of the New Haven Post Office Revolver Club, Federal Building, New Haven, is published with the idea that there may be numerous postal department shooters around the country who would like to get in touch with Mr. Webster's club and arrange matches. His letter indicates that in spite of the indifferent attitude of the postal employees toward the training of the men whom they have armed for the defense of the mails, much good can be done along this line if someone sufficiently interested starts the ball rolling.

According to our records, the original Post Office Employees' Rifle Club is the one which has been functioning with marked enthusiasm for several years in Des Moines, Iowa.

NEW HAVEN POST OFFICE REVOLVER CLUB,
New Haven, Conn., March 9, 1928.

MR. L. J. HATHAWAY,
Editor, AMERICAN RIFLEMAN,
Washington, D. C.

Dear Sir:

I read with great interest your editorial on "Out to Win" in the current issue of THE AMERICAN RIFLEMAN. I want to let this postmaster know that he is not the first to start an organization with the protection of the mails in view. I do honestly believe that we are the first organized revolver club in any post office in the world.

Just a few words as to how we started. The writer has been a member of rifle and pistol teams representing this State at the National Matches at Camp Perry, Ohio, on several occasions. During these trips to Perry I noticed the increasing number of police teams year after year; also noting the increasing number of holdups of mail trucks with practically nothing being done in the line of giving postal men proper practice in the use of small arms. A man is given a gun, holster, belt and a few cartridges and sent out with a load of valuable mail, and God help the innocent bystander if the average guard was called on to use that gun. Well, when I came back from Perry last year, I broached the subject to one of the supervisors, and he introduced me to the man who had charge of what little pistol practice that had been done in this post office. We talked on the subject for a long time, he being a dyed-in-the-wool pistol bug. I proposed that we call a meeting to see if the boys were interested in forming a revolver club. This meeting was called October 11, 1927, and was attended by 13 prospective members. That wasn't a very large number, but the good old U. S. A. was formed with the same number of States and it has progressed in a satisfactory manner. We organized and voted to have our first meeting

one week later with an election of officers and a shoot to follow. After much running around, I secured the ranges of the Quinnipiac Rifle and Revolver Club for our use on Tuesday nights. At our first meeting we had 25 members and had the services of our good old friend Harry Morrell, of this city, who is well known to the shooting world at large. Harry kindly loaned us the use of three of his pistols, and after the elections we went to work on the would-be shooters. The shooting was about what one would expect from green men, but they were all enthusiastic and that is half the game. The following week our membership jumped up to 33. We now have over 50 men on our rolls.

We ran novelty matches and handicap matches, letting each man name his own handicap and taking off 3 points for each point over 100. At Thanksgiving we had a big turkey shoot, and we had another one at Christmas time. Due to the Christmas rush we were idle for about three weeks. Then we started full blast. We then had a match between the Clerks and the Carriers which was won by the Clerks 371 to 350, five men to a team.

We had A. C. Hurlburt and Fitz down from the Colt Company one evening. Fitz gave an instructive talk to the boys which they enjoyed very much. He also "pulled" a few of his many stunts on a couple of the boys much to the merriment of the rest of the gang. The Colt company rendered us valuable service in the way of instructive books, targets, etc.

We began looking for outside competition; so we sent out challenges to the Quinnipiac Rifle and Revolver Club, the New Haven Police Department and the First National Bank Clerks. Our challenges were answered by the Quinnipiac Club and the Bank Clerks, but the one from the police was missing, strange to say. Well, after a lot of fussing around we decided to hold the match at the Quinnipiac ranges Thursday, February 16, 1928, with a turkey supper. We were forced to eat the supper before the shoot, and that probably interfered with the scores. The Bank Clerks did not show up, probably having to work over that night. We shot the match and here are the results:

QUINNIPAC CLUB		NEW HAVEN CLUB	
Name	Score	Name	Score
J. Stewart	92	H. Webster	85
Eric Johnson	87	E. LaBrake	81
S. Ludlum	86	H. West	81
Bob Horton	82	J. Crowley	80
Harry Morrell	81	B. Mulvey	80
Total	428	Total	407

I think that this was a fine showing for a bunch of green shooters up against a club like the Quinnipiac. Our gang swears that they will trim them in the next match (challenge).

Now I was going to write you long before this but I've had a lot of sickness to contend with and only was spurred to action by your editorial. My real object was to get a write-up in THE AMERICAN RIFLEMAN with the idea of starting a revolver league among the post offices throughout the country. I would like to get in touch with any other

pistol-shooters in post offices with this object in view. I would also like to see a pistol match for postal employees in the National Matches.

Very truly yours,

HAROLD M. WEBSTER,
Executive Officer.

PACIFIC CLUB HONORS WALLACE

GERALD B. WALLACE was elected an honorary life member of the National Rifle Association at this week's meeting of the Pacific Rifle Club. Judge Wallace organized the Pacific Rifle Club last semester, and has since served as its executive officer. He recently took a prominent part in the management of the Prize Shoot of the Roberts Island Rifle Club, the proceeds from which were donated to the Pacific riflemen. The college men interested in rifle-shooting took this means of showing their appreciation of what he has done to further the sport here.

ROBERTS ISLAND RE-ENTRY SHOOT

THE Re-entry Prize Shoot held by the Roberts Island Rifle Club was the most successful of its kind ever staged in San Joaquin County. Hundreds of shooters participated and over a thousand people visited the rifle range during the day. Scores of people drove from San Francisco, Oakland, Berkeley, Livermore, Modesto, Angels Camp, San Andreas, Sacramento and other distant points, and many of them picnicked under the trees along the levee of the San Joaquin River.

Competition for the more valuable prizes was especially keen. The scores of the less experienced shooters were also so close that the distribution of some of the sixty-one merchandise orders will not be made until after the meeting of the Club. The \$20 cash prize from the San Joaquin Fish and Game Protective Association for the highest score of 9 shots on the 200-yard range was won by Gilbert Barthold. The Crosman .22 pneumatic rifle from the R. E. Doan Co. was won by E. J. Patterson. The \$15 cash prize from the Stockton Advertising Club for the highest total of 60 shots was won by Henry Ronkendorf. Maurice Kaiser, of Sacramento, took the \$10 cash prize from San Joaquin Fish and Game Protective Association for the second highest total of 9 shots. The \$5 cash prize from the Stockton Advertising Club for the next highest total of 60 shots went to George Ohm.

Ray Wilson, of the College of the Pacific, won the \$10 order from Gloria Ice Cream Co., for the highest total of 3 shots. The season pass for two people donated by the National Theater for the highest aggregate of all shots fired during the day was won by Gerald B. Wallace. The first prize of 12 photographs at Coover's studio for the highest total of 60 shots on the indoor range was won by Dr. Carl W. Wahrer, of Sacramento. The \$10 merchandise order from Piggly Wiggly for the highest total

of 9 shots was won by Henry C. Lockey. The pair of racing homers from the Star Pigeon Loft for the best 3 shots was won by Stanley Lockey. The special prizes for ladies created much interest. The \$5 merchandise order from Smith & Lang was won by Miss T. Carsten. The \$5 compact from M. Friedberger & Co., was won by Miss Berniece Fiola. The \$5 necklace from J. Glick & Son was won by Miss Mabel Carron.

President Ronkendorf of the Roberts Island Club, commenting on the success of the shoot, said: "We wish to thank the Stockton merchants and all others who helped with the Prize Shoot. We can now turn over to the College of the Pacific Rifle Club a neat sum to help them get equipment. We expect to make the Spring Prize Shoot an annual affair and know that it will help to turn out winning rifle teams at the College of the Pacific."

BATTLE FLEET'S CRACK TEAM WINS AND LOSES IN CALIFORNIA

By M. W. SCANLON, President California Rifle and Pistol Clubs Association

CIVILIAN DAY, which is always the third Sunday of the month at the California State Rifle Range at Leona, near Oakland, came as near being a little Camp Perry in April as a one-day shoot can be if one may judge on the basis of hard shooting, high scores, excellent range operation, and teams of real national and international caliber competing.

By 9 a. m. there were 22 targets in operation, 14 on the 200-yard range and 8 more on the 300-yard side. And over on the pistol range the pistoleers were as busy as the rest. There were by that time 83 automobiles parked back of the line and about 170 individuals, of whom 126 fired for record, were on hand. Part of the crowd were naval militiamen and a scattering from other organizations; but the bulk of the crowd was there for the big match between a picked team from the Battle Fleet and an all-club team from the California Rifle and Pistol Clubs Association.

Right here let it be explained that in the haste of making the preliminary arrangements a misunderstanding arose which meant the difference between winning and losing to the Navy, as the scores below will show. The sailors believed that they were to compete with the team from the San Francisco Olympic Club only, while the Association, not knowing of the Navy's supposition, selected an all-club team for the occasion. Some of the newspapers later announced that the Navy won, while others gave the match to the Association. All club team scores are given below, for the Navy beat the Olympic Club and the Association beat the Navy. The teams were of ten men each, six scores to count. The course fired was the Army Course A, and individuals firing were thus given an opportunity to record their qualification score in their respective clubs. The National Rifle Association

rules applied throughout. Firing started at 8 a. m., and was completed about 3:30 p. m.

The day was ideal for shooting. What little wind there was blew from behind the line. Light conditions, due to a barely noticeable haze, were very uniform all day. The temperature hung between 65 and 70. (Eastern papers please copy!) Some of the teams reported before 7:30 that morning, though they came from San Jose, 50 miles away, and Stockton, 90 miles away. As the teams and clubs took their posts on the firing line, Camp Perry veterans on both sides began to recognize each other. When it was realized that the Fleet had its Camp Perry gang out, a general tightening up took place all down the line. This was going to be a hard-fought match between veteran shots, and only extra good scores would mean anything. The Navy had eight men out of ten to the Association four out of ten who had been to the National Matches.

On the Navy list were four men—Amy, Criswell, Shepard, and Tichenor—who had been on the team which surprised the 1927 National Matches by taking the Herrick Trophy and setting up a new record score in doing it. Among the Association men were Haack, Ronkendorf, and Dolson of the team that won the 1927 Civilian Inter-club Team Match at Camp Perry. Captain Towles, C. N. G., was in charge of the firing line as range officer, and Capt. Arnold Smith commanded in the pit. To these two men goes the greatest credit for the smooth and rapid operation of the range and the completion of the event by the middle of the afternoon.

The final standing of the teams was as follows:

Association All-Club team	1,985
Battle Fleet	1,976
Olympic Club	1,969
Roberts Island Rifle Club	1,951
Melrose Rifle Club	1,880
Golden Gate Rifle Club	1,872

The six-man team score of 1,985 breaks all previous records for Course A on the Leona range. Even the score of 2,838, which won the National Team Match at Camp Perry last year, when converted to its theoretical equivalent on Course A would only be 1,986, one point better than the Association's score here. And if Wayne could have been counted in place of the low man of the six, the Association's score would have been another twelve points higher.

High individual score was made by Shepard, of the Navy, with Barthold, of Roberts Island, and Wayne, of the Olympic Club, taking second and third, respectively. A gold medal to high Navy man—Shepard—was presented by the Olympic Club at a dinner given to the Navy team by the Olympic Club on the evening of the day of the match.

The match with the team representing the Battle Fleet was made possible by the presence of the Fleet in San Francisco Bay with a heavier complement of ships than has ever before assembled here at one time.

April 15, 1928, will be remembered by the California boys, and they are hoping that another visit from the Fleet will make another similar match possible at an early time.

FORT PREBLE PISTOL MATCH

THIS competition was held under the auspices of the Portland Pistol and Revolver Association, an organization organized during this past winter devoted to the advancement of pistol marksmanship in and around Portland, Me.

The course that was fired was the U. S. Army qualification course minus the bobbing target or as follows:

Twenty-five yards, slow fire, 10 shots; 25 yards, rapid fire, 10 shots, 15 seconds per five shots; 15 yards, rapid fire, 10 shots, 11 seconds per five shots.

Teams.—First, Eighth Coast Artillery (R. A.), 1,053; second, Service Company, 103rd Inf. (N. G.), 1,001; third, Service Company, 5th Inf. (R. A.), 994.

Individuals.—First, Capt. Harry R. Pierce, 8th C. A., 285; second, Lieut. Oscar Johnston, 5th Inf., 277; third, Sergeant Pippin, 5th Inf., 274.

SMALL-BORE SHOOT NEAR LIMA, OHIO, JUNE 10

THE First Annual Outdoor Small-Bore Rifle Tournament, sponsored by the Northwest Central Ohio Rifle League, will be held on the Tony's Nose range, 4 miles northeast of Lima, Ohio, near the Dixie and Harding highways, Sunday, June 10.

The course of fire will be five shots in each of four positions—prone, sitting, kneeling and standing—on the 50-yard targets; any sights; 10 shots at 50 yards and 10 shots at 100 yards; iron sights only. Medals for the high score in the 50-yard match, for the iron-sight match, and for the aggregate will be awarded by the league. In addition, the Lima Rifle and Revolver Club will sponsor a 10-shot match with any revolver or pistol, at 50 yards, on the 50-yard standard American decimal target. Re-entries will be permitted for the iron-sight match and the handgun events, with the money divided according to scale. Visitors are invited.

ROXBURY LOSES FIRST MATCH

AN INDOOR SMALL-BORE MATCH was held in Ridgewood, N. J., April 28 between 10-man teams from the Roxbury Rifle and Pistol Club and the Ridgewood Rifle Club. The latter won by 79 points. This was the new Roxbury Club's first match with another club. The match was thoroughly enjoyed by both clubs. The Ridgewood Club have an exceptionally fine 75-foot indoor range with 7 targets.

SCHUETZEN SHOOT OPENS AT DAVENPORT

THE opening shoot of the Davenport Shooting Association took place on a recent Sunday afternoon at the 200-yard Forest Park range.

All shooting was offhand, in a free standing position. The weather was quite cool, and was almost unpleasant, yet a fine time was had, as quite a number of out-of-town shooters participated.

Following are the scores:

HONOR TARGET, $\frac{1}{4}$ -INCH RINGS, 3 SHOTS, POSSIBLE 75

POINTS	
Ed Muhl	65
Roy Vosburg	65
C. F. Denkmann	63
E. L. Grundmeier	57
Emil Berg	57
W. F. Meiburg	56
H. L. Frazier	56
O. J. Rohlf	55
Gus Muhl	55
Wm. Gosch	54
J. F. Nabstedt	54
Jul. Muhl	54
L. H. Becker	54
H. F. Kuhlman	53
C. Jansen	52
E. Rutenbeck	52
W. J. Bleuer	51
Frank Berg	47
Julius Arp	31

FIVE-SHOT MATCH, $\frac{1}{4}$ -INCH RINGS, POSSIBLE 125

C. F. Denkmann	116
Ed Muhl	115
Emil Berg	113
H. L. Frazier	110
Jul. Muhl	110
C. Jansen	109
Gus Muhl	106
H. L. Kuhlman	106
E. L. Grundmeier	105
Frank Berg	105
Wm. Gosch	102
O. J. Rohlf	101
Roy Vosburg	98
E. Rutenbeck	97
W. J. Bleuer	93
W. F. Meiburg	90
L. H. Becker	80
Julius Arp	64

DAVENPORT TARGET, $\frac{1}{4}$ -INCH RINGS, 1 SHOT, POSSIBLE 25

Roy Vosburg	25
Ed Muhl	25
H. L. Frazier	24
Ed Muhl	23
Gus Muhl	22
C. Jansen	22
Wm. Gosch	22
C. F. Denkmann	20
E. L. Grundmeier	17
E. Rutenbeck	17
H. F. Kuhlman	17
Julius Arp	15
Julius Muhl	11
O. J. Rohlf	10
W. J. Bleuer	9
W. F. Meiburg	4
L. H. Becker	1

MAN TARGET, $\frac{1}{4}$ -INCH RINGS, 3 SHOTS, POSSIBLE 60

Ed Muhl	57
C. Jansen	55
C. F. Denkmann	55
H. L. Frazier	55
E. Rutenbeck	55
O. J. Rohlf	55
Gus Muhl	54
Frank Berg	53
Emil Berg	52
Wm. Gosch	51
Julius Muhl	50
W. J. Bleuer	49
Roy Vosburg	49
W. F. Meiburg	47
E. L. Grundmeier	47
H. F. Kuhlman	44
L. H. Becker	42
Julius Arp	32

PEOPLE'S TARGET, $\frac{1}{4}$ -INCH RINGS, 3 SHOTS, POSSIBLE 75

C. Jansen	71
Ed Muhl	70
Gus Muhl	70
C. F. Denkmann	68
H. L. Frazier	67
J. Muhl	66
L. H. Becker	65
E. L. Grundmeier	65
Emil Berg	65
E. Rutenbeck	65
O. J. Rohlf	63
Frank Berg	62
Wm. Gosch	62
Roy Vosburg	61
C. W. Keller	61
W. F. Meiburg	56
W. J. Bleuer	55
H. F. Kuhlman	52
Julius Arp	51

FINAL BULLETINS—N. R. A. GALLERY MATCHES

OFFICIAL BULLETIN NO. 49—APRIL 16, 1928

MILITARY SCHOOL TEAM CHAMPIONSHIP

Course of fire—50 shots prone, 10 sitting, 10 kneeling, and 10 standing. (Five high scores in each stage to count for record.)

1. Culver Military Academy, Culver, Ind.

Name	1st	2nd	3rd	4th	Total
G. K. Hayden	200	195	183	189	
S. E. Galbraith	199	196	192	182	
J. B. Wagner	199	194	183	184	
J. T. Logan	198	194	194	179	
L. A. Hayden	198	193	187	172	
G. D. Gates	197	194	188	175	
T. S. Hayden	196	196	187	186	
J. A. Goetz	195	192	186	172	
G. H. Whittlesey	195	194	185	172	
P. M. Earley	193	194	188	168	3,838

Rifle, Winchester 52; sights, metallic; ammunition, Peters Tackhole.

2. St. John's Military Academy, Delafield, Wis. 3,809

3. Kemper Military School, Boonville, Mo. 3,722

4. Oak Ridge Inst., R. O. T. C., Oak Ridge, N. C. 3,661

5. Bordentown Military Inst., Bordentown, N. J. 3,421

6. Sewanee Military Academy, Sewanee, Tenn. 3,236

OFFICIAL BULLETIN NO. 50—APRIL 16, 1928

GIRLS' INTERSCHOLASTIC MATCH

Course of fire—30 shots prone, each member.

1. Central High School, Washington, D. C.

Name	1st	2nd	3rd	Total
Mae Clement	98	99	97	
Katherine Cutler	98	96	93	
Elinor Milburn	98	95	96	
Virginia Pile	97	97	96	
Louise Bebb	97	96	96	
Rhoda Lewton	95	97	92	
Louisa Paul	95	92	94	
Eleanor E. Kise	95	98	94	

Margaret Pierce 92 89 ..
Helen Chafee 93 96 94
Evelyn Hahn 97 1,460
Rifles, Winchester 52; sights, metallic; ammunition, Remington.

2. Central High School, Kansas City, Mo. 1,453

3. Western High School Girls' Team, Washington, D. C. 1,439

4. New Trier High School, Wilmette, Ill. 1,437

5. Central High School Team, No. 2, Washington, D. C. 1,434

OFFICIAL BULLETIN NO. 51—APRIL 16, 1928

INTERSCHOLASTIC TEAM MATCH

Course of fire—40 shots prone, 10 shots kneeling, and 10 shots standing.

1. Fresno High School, Fresno, Calif.

Name	1st	2nd	3rd	Total
L. Jeffreys	193	191	188	
G. Bollinger	193	180	181	
L. O'Toole	197	189	176	
R. Hansen	197	185	186	
A. Kabgrier	195	185	175	
O. Ivey	193	176	167	
B. Diamond	193	167	183	
E. Foy	191	187	174	
J. Bartram	190	194	190	
F. Fitzuay	189	191	171	2,865

Rifles, Winchester 52; sights, metallic; ammunition, U. S. N. R. A.

2. Western High School, Boys' Team, Washington, D. C. 2,837

3. Central High School, Washington, D. C. 2,829

4. Thomas Jefferson High School, Brooklyn, N. Y. 2,822

5. Bangor High School, Bangor, Me. 2,814

6. Iowa City High School, Iowa City, Iowa 2,790

7. Porterville Union High School, Porterville, Calif. 2,684

8. Grover Cleveland High School, St. Louis, Mo. 2,683

9. Central High School, Team No. 2, Kansas City, Mo. 2,680

10. Poly. Prep. Country Day School, Brooklyn, N. Y. 2,571

11. Hill School Rifle Team, Pottstown, Pa. (Not Reported.)

12. Central High School, Team No. 3, Kansas City, Mo. (Not Reported.)

13. Central High School, Team No. 1, Kansas City, Mo. (Not Reported.)

CONTRIBUTIONS—1928 INTERNATIONAL TEAM FUND

(Contributions received up to, and including, May 10.)

Previously acknowledged	\$472.91
Ernest Menken, Brooklyn, N. Y.	2.00
James E. Ullman, Eagle, Calif.	5.00
H. W. McBride, Saticum, Wash.	5.00
J. J. Shephard, Rochester, Pa.	1.00
Harry Frohm, Wilkes-Barre, Pa.	1.00
G. G. Williams, Bolton, Miss.	1.25
M. O. Evenson, Wahpeton, N. Dak.	2.00
Clayton C. Gennell, Pontiac, Mich.	2.00
George T. Morgan, Coxsackie, N. Y.	2.50
Carroll C. Butterfield, Skowhegon, Me.	1.00
Thomas H. Smith, Denver, Colo.	10.00
M. B. Steffy, Elizabethtown, Pa.	1.00
Alden H. Ryan, Oberlin, Ohio	1.00
F. C. Tilden, Greencastle, Ind.	2.00
C. C. Fuller, Riverdale, Calif.	1.00
W. H. Dellbrugge, Bend, Oreg.	2.00
Chas. W. Williams, Batavia, N. Y.	1.00
H. N. Powell, Eagle Rock, Calif.	1.00
Herb Freund, McHenry, Ill.	5.00
Arthur Dennison, Romoland, Calif.	1.00
Elisha W. Mann, Seattle, Wash.	1.00
Gedney C. Robinson, Mojave, Calif.	1.00
Alfred Brooks, Wellsville, N. Y.	1.00
R. H. Hale, Frazier, Mont.	1.00
James W. McCoy, Kent, Ohio	2.00
Samuel A. Munn, Jr., Tappan, N. Y.	2.00
Wm. Molloy, Chicago, Ill.	2.00
Adam W. Schuvel, Grangeville, Idaho	3.00
Joe Bell, Darlington, Wis.	4.00
C. E. Wynn, Canton, Ohio	2.00
Carl C. Werminghansen, Brooklyn, N. Y.	1.00
Chas. H. Trotter, Indianapolis, Ind.	2.00
Henry J. Rostencher, Saginaw, Mich.	2.00
Geo. L. Wood, Jr., Oleum, Calif.	2.00
Frederick Pauch, Somerville, N. J.	1.00
S. V. Caslow, Pleasant Valley, Mont.	2.00
Geo. W. Klein, North Braddock, Pa.	1.00
S. W. Hall, Long Beach, Calif.	1.00
Victor L. Anderson, Springfield, Ohio	1.00
Lad J. Skocpol, Crete, Nebr.	1.00
R. W. Street, Kansas City, Mo.	1.00
Allyn H. Tedmon, Littleton, Colo.	2.00
H. M. Jacobs, Columbia Falls, Mont.	5.00
Mr. and Mrs. S. J. Lanning, Sioux City, Iowa	2.00
A. L. Somer, Falls City, Nebr.	2.00
John L. Martin, Englemin, Calif.	2.00
E. H. Bradford, Bakersfield, Calif.	2.00
E. Goetchins, Medical Lake, Wash.	1.00
L. J. Shaben, Norwood, Ohio	1.00
Frank E. Thompson, Pittsburgh, Pa.	1.00
Ira Denness, South Bend, Ind.	1.00

(Continued on Page 35)



(A Unit of the National Rifle Association devoted to teaching every boy and girl in America the safe and accurate handling of the rifle.)

Conducted by H. H. Goebel

The Junior Rifle Corps in the Camps

THE sport of rifle practice is fast becoming one of the most popular attractions in the camping program. Although the number of affiliated camps and qualifications made last year bettered all previous records, present indications are that the coming season will be even greater. We are just completing a most wonderful indoor season culminating with the National Individual Championship Match and the third series of biweekly matches. This constant increase in interest and activity is exceedingly gratifying to us at National Headquarters, for we are convinced that the program as it is set up appeals and is what the young shooter wants.

In reply to a recent circular to directors of the private and institutional camps throughout the country approximately 200 new camps have asked for complete information and the program. It is reasonable to believe that a goodly number of these camps will be listed among those affiliated and participating in the Junior program of rifle practice this summer. The Y. M. C. A. and Boy Scout Camps are coming in particularly strong, and of course our old friends the private camps will be back with us stronger than ever.

We have this year encouraged the camps to affiliate as early as possible. Forty-three camps have already submitted their affiliation fees. Their enrollments will be forwarded later on for membership booklets and buttons. These camps follow:

Camp Lookout Mountain for Boys, Mentone, Ala.
Camp Restwell for Boys, on Lake George, N. Y.
Touring Boys' Camp, Ann Arbor, Mich.
Camp Sequoya, Bristol, Va.
Brown Memorial Camp, Abilene, Kans.
Island Park Camp for Boys, Walton, N. Y.
San Luis Valley Boys' Camp, South Fork, Colo.
Camp Sokokis, Bridgton, Me.
Camp Cherokee, Beach Lake, Pa.
Camp Matoaka, St. Leonard, Md.
Camp Wulamat, Bristol, N. H.
Chimney Rock Camp, Chimney Rock, N. C.
Camp Wanaki, Cass Lake, Minn.
Camp Dudley, Westport-on-Lake-Champlain, N. Y.
Camp Kennebec, North Belgrade, Me.
Camp O-At-Ka, East Sebago, Me.

Camp Tay-Low, Mobile, Ala.
Camp Mowglis, East Hebron, N. H.
Camp Androscoggin, Wayne, Me.
Camp Lafayette, Merrill, Clinton Co., N. Y.
Stewart's Camp for Boys, Keerville, Tex.
Mystic Camp for Girls, Keerville, Tex.
Camp Kyle, Catskill, N. Y.
Camp Manning, Andover, Mass.
Camp Nokomis, Harrison, Me.
Camp Arrow, Coeur d'Alene Lake, Idaho.
Minne Wonka Camp, Three Lakes, Wis.
Camp Tip, Clayton, N. Y.
Camp Shawanogi, Covington, Va.
Camp Ropioa, Long Lake, Harrison, Me.
Camp Wood, Elmdale, Kans.
Camp Hiawatha, Kezar Falls, Me.
Oklahoma State "Y" Camp, Grove, Okla.
Camp Mechano, Sebago Lake, S. Casco, Me.
Camp Idlewild, Lakeport, N. H.
Camp Alleghany, Ronceverte, W. Va.
Camp Greenbrier, Alderson, W. Va.
Woodcraft School, Culver, Ind.
Great East Lodge Camp, Sanbornville, N. H.
Sherwood Camp, Boyne City, Mich.
Camp Wi-Co-Su-Ta, Bristol, N. H.
Camp Menatoma, Kents Hill, Me.
Camp Senape, Sharon, Litchfield Co., Conn.

One of the big features of the camp program is the National Camp Match, conducted in two divisions for all boy and all girl camps. Special trophies are awarded the winning teams in each division. The brother-and-sister camps, Greenbrier and Alleghany, respectively, of West Virginia, carried off the honors last year, but one of the New England camps has assured us that it is going to make every effort to carry off the trophy this year. In these matches ten campers represent the team, the five high scores to count. There are ten record shots per member, prone. The match is fired during the first week of August, and all returns must reach National Headquarters by the 15th. This date is set so as to give us ample time to have the trophies engraved and sent back to the camps before the season closes.

Included with the many supplies forwarded to the camp we are this year sending blank diplomas for each of the medal awards on consignment. As members qualify for each medal decoration they are issued a diploma,

which is filled in, giving the individual's name and date, at the camp. This arrangement simplifies the procedure considerably, as it eliminates to a marked degree the delays that have occurred in the past in submitting the records, the preparation of the diploma and its remailing. With the tremendous amount of added work thrust upon us during these two short summer months it is physically impossible to get the diplomas back to camp before the season closes, and in most instances they have in the past been mailed direct to the individuals' homes. We believe that this new procedure will help to make the presentation of the award much more effective and interesting.

We are also encouraging the camp directors to affiliate as many of their campers as will as individual members of the Junior Rifle Corps. By affiliating as a member of the camp rifle club each camper is eligible to compete for the many individual medal decorations and in the camp matches; but when the season is over the individual no longer has any direct tie-in with National Headquarters. By affiliating as an individual member he is at all times in contact with National Headquarters and the Junior shooting game through the *J. R. C. News*. He is also eligible to continue with his rifle practice in his home town and is encouraged to affiliate his friends and organize local clubs.

There is one other thing that is very important. In past years many of the camps have waited until the last week in August before sending in their qualifying targets and affidavits for awards, with the result that we had a mountain of them and could not possibly complete records before camp closed. We are asking that each camp this year be sure to send in a weekly report and incidentally include remittances for awards issued from the consignment, thus clearing the account each week.

JUNIOR MATCHES AT CAMP PERRY

PLANS are now under way for a full week of national competition for affiliated individual and club members of the Corps at Camp Perry during the period of National Matches. These matches will be conducted during the three-week period commencing August 26 and ending September 16. The School of Instruction will be held during the first week, and it will be at this time that the Junior events will be fired. Those of you who have previously attended the National Junior Matches know about what to expect in the way of competition. We have, however, benefited by past experience in conducting these events and several new features will be added this year. The plans at this writing are not complete. The program will be ready for distribution about the middle of June, and copies will be forwarded all members of the Corps.

Camp Perry is located 6 miles from Port Clinton and 2 miles from Lacarne, Ohio. Both stations are on the main line of the New York Central Railroad 30 miles east of Toledo and 80 miles west of Cleveland.

Most trains on the New York Central road stop at Lacarne. Tickets may be purchased direct to Camp Perry and baggage checked to this destination. Near the railroad station at camp a bureau of information and a receiving and assignment station is established under the direction of competent officers. Immediately upon arrival all competitors should report to this bureau. There will be no delay in assignment as a special area in camp is set aside for all Junior competitors. Equipment is also provided, although each member will be responsible for the equipment furnished, such as cots, mattresses, pillows, blankets and tent equipment. Bed sheets, pillow cases and the like must be furnished by the competitor.

All the principal arms and ammunition manufacturers have display houses at camp and their representatives are always ready and willing to show those interested their various products. These houses are established in one line readily accessible to competitors and visitors. Ammunition and arms of the latest designs and of special qualities will be available for purchase at all times.

The days at Perry during the match period are generally warm and frequently hot. The nights are invariably cool. Competitors should be governed accordingly in laying out their wardrobe. The bathing beach at camp is as good as any on the lake shore, and bathing suits may be made a part of the wardrobe.

Make your plans now to be in on these National Matches. Come for the whole period of matches; but if you must get away early arrangements will be made for completing the matches before you leave. Why not have your club as a whole represented?

If you are a Camp director, your camp should be represented, as this match will be given national publicity in the papers of the country. Your best shots will welcome the opportunity to compete in shoulder-to-shoulder matches with the best of the Junior shots.

FRESNO HIGH LEADING IN BIWEEKLY MATCHES

THE Fresno High School Boys' first team, of Fresno, Calif., is well in the lead in this last series of biweekly matches. They have placed first in the two matches completed, setting up a new five-man-team score of 498. The best previous team score was 496. The Kingswood School, of West Hartford, Conn., has made great advancement over their previous scores. This team has placed second for these matches. The second team of the Fresno High School has also made rapid strides, coming into third place in the second match. The record established at the Fresno High is truly remarkable, but it only goes to prove that in the long run consistency wins. This certainly brings out the interest and enthusiastic support of the members of these teams.

For the second match five members submitted possibles. Three of these boys—Lester Jeffreys, Richard Hansen, and Glen

Bollinger—are members of the Fresno High Team, while Andrew Pierson and Loeffler are at Kingswood. The five-man-team score for Fresno sets up a new record in these matches. In addition to the three possibles made, Jack Bartram, L. O'Toole, and Harvey Porter made 99's.

We can not advise the instructors and the members of the various clubs of our organizations too strongly that they should take part in the next series of biweekly matches which opens the first week of October. We would like to see every affiliated club entered. You need not necessarily make entry for the complete series of three matches. Entries are received in September, December, and March for the series to follow. This form of competition which is of national standing will help to create and make the interest in the sport lasting.

BULLETIN NO. 2

DIVISION A

Team and address	Score	Points	Total points	Total 3 series
1. Fresno High 1st Team, Fresno, Calif.	498	300	600	3,840
2. Kingswood School, W. Hartford, Conn.	496	270	540	2,469
3. Fresno High 2nd Team, Fresno, Calif.	491	240	450	1,180
4. Western High Boys, Washington, D. C.	490	210	450	3,960
5. Cretin High, 1st, St. Paul, Minn.	488	180	180	180
6. Shattuck School, Faribault, Minn.	487	150	360	360
7. Fresno Tech, 1st, Fresno, Calif.	485	120	300	990
8. Ridgewood High, Ridgewood, N. J.	484	90	90	990
9. Western Girls, Washington, D. C.	482	60	150	1,440
10. Iowa City High, Iowa City, Iowa.	481	30	90	90
11. Arsenal Tech J. R. C., Indianapolis, Ind.	481	30	30	30
12. Porterville Union, 1st, Porterville, Calif.	474	..	30	1,200
13. Lewis and Clark High, 1st, Spokane, Wash.	469	..	..	1,140
14. Evanston Township Hi, Evanston, Ill.	461	..	..	1,110

DIVISION B

Team and address	Score	Points	Total points	Total 3 series
1. *Bordentown Mil., Inst., Bordentown, N. J.	479	200	360	770
2. *Richmond Hill High, Richmond Hill, N. Y.	475	180	380	1,520
3. *Malden High, Malden, Mass.	471	160	340	1,480
4. Centennial J. R. C., Chicago, Ill.	463	140	320	1,280
5. Central High, Newark, N. J.	462	120	240	1,540
6. Hyde Park Dept. Y, 1st, Chicago, Ill.	462	120	240	730
7. Turlock High, Turlock, Calif.	461	100	240	700
8. Porterville Union, 2nd, Porterville, Calif.	458	80	180	1,300
9. Fresno Tech High, 2nd, Fresno, Calif.	458	80	80	380
10. Crosby High, 1st, Waterbury, Conn.	457	60	220	600
11. Y. M. C. A. Rifle Club, Tulsa, Okla.	457	60	60	1,280
12. Forest Park High, Baltimore, Md.	455	40	40	40
13. Blodgett Voca., 1st, Syracuse, N. Y.	452	20	60	300
14. Monson Academy, Monson, Mass.	451	..	..	..
15. Cheyenne High, Cheyenne, Wyo.	450	..	..	..
16. Ridgewood High, 2nd, Ridgewood, N. J.	450	..	60	200
17. Bridgeport, Conn.	450	..	80	400
18. Lewis and Clark, 2nd, Spokane, Wash.	447	..	..	940
19. Roselle High, Roselle, N. J.	447	..	..	..
20. Y. M. C. A. Rifle Club, Wichita, Kans.	442	..	160	440

21. Blodgett Voca., 2nd, Syracuse, N. Y.	436	..	60	180
22. Pawnee J. R. C., New York City	416	..	..	250

* Division A teams for match of April 28.

DIVISION C

Team and address	Score	Points	Total points	Total 3 series
1. *Pillsbury Academy, Owatonna, Minn.	450	100	190	190
2. *Hyde Park Dept Y, 2nd, Chicago, Ill.	445	90	160	350
3. *Haaren High, New York City	442	80	120	120
4. *North Tarrytown, 1st, N. Tarrytown, N. Y.	441	70	70	790
5. *Salina High, Salina, Kans.	441	70	100	100
6. Y. M. C. A., 1st, Great Falls, Mont.	439	60	60	680
7. John Marshall High, Richmond, Va.	437	50	50	50
8. Central High, Syracuse, N. Y.	437	50	100	340
9. Cameron J. R. C., 2nd, Alexandria, Va.	434	40	100	100
10. Stephens High, Rumford, Me.	427	30	30	30
11. N. Tarrytown High, 2nd, N. Tarrytown, N. Y.	426	20	20	20
12. Bonita Union High, La Verne, Calif.	424	10	20	630
13. Stadium High, Tacoma, Wash.	419	..	..	90
14. Willard Hall School, Wilmington, Del.	419	..	..	130
15. Ginter Park Boys, Richmond, Va.	419	..	..	310
16. Brooklyn Edison B. S., Brooklyn, N. Y.	417	..	80	80
17. Luther High, Luther, Okla.	415	..	..	800
18. Lewis and Clark, 3rd, Spokane, Wash.	414	..	..	770
19. Madera High, Madera, Calif.	410	..	..	..
20. Lincoln High, 2nd, Tacoma, Wash.	408	..	..	..
21. Curtis High, 2nd, Staten Island, N. Y.	406	..	20	660
22. Lincoln High, 1st, Tacoma, Wash.	402	..	..	..
23. Y. M. C. A., 2nd, Great Falls, Mont.	393	..	..	380
24. Norristown J. R. C., Norristown, Pa.	390	..	..	..
25. Pawnee Rifle Club, 2nd, New York, N. Y.	378	..	..	..
26. Germantown High, Germantown, Pa.	368	..	..	..
27. Y. M. C. A., 3rd, Great Falls, Mont.	356	..	..	100
28. Y. M. C. A., 1st, Glens Falls, N. Y.	325	..	..	..
29. Dundee High, Dundee, Ill.	322	..	..	..
30. Menominee High, Menominee, Mich.	316	..	..	70
31. Susan S. Sheridan Hi, 2nd, New Haven, Conn.	312	..	..	..
32. Susan S. Sheridan Hi, 1st, New Haven, Conn.	302	..	..	..
33. Y. M. C. A., 2nd, Glens Falls, N. Y.	277	..	..	..

* Division B teams for match of April 28.

EXPERTS AND DISTINGUISHED RIFLEMEN

IT HAPPENS every day, every time, and in anything we do—it is always the consistent fellow—the one who makes up his mind to accomplish and by constant plugging away—who wins. Just as the office boy or bank-runner through the medium of conscientious consistency climbs to a responsible position in his business, so do N. R. A. Junior Rifle Corps members shooting regularly shoot their way to the front ranks, thereby winning higher decorations.

A consistent member may not always be at his best but we'll venture to say that the fellows—and girls—who are determined and "keep shooting" will always be among the winners. The following 29 Experts qualified during the past month and are now proud owners of the Expert Rifleman Medal. They have proven that "consistency wins," for their qualifications were made over a long period of time. Having had a taste of

four-position shooting, they are now working toward the highest Junior Rifle Corps individual award—that of Distinguished Rifleman:

EXPERTS

W. F. Brown, Boonville, Mo.
C. S. Sievers, Boonville, Mo.
Ralph Lohrum, St. Louis, Mo.
James I. Martin, Davenport, Iowa.
Ralph Bell, Chevy Chase, D. C.
Frederick Doolittle, Brooklyn, N. Y.
Edward Kunz, Wilmette, Ill.
John Daniel, New York, N. Y.
S. D. Gralak, Chicago, Ill.
E. A. Kiessling, Brooklyn, N. Y.
J. L. Frisse, Brooklyn, N. Y.
P. J. Beary, Brooklyn, N. Y.
Arthur Anderson, Tacoma, Wash.
Meredith Mott, St. Louis, Mo.
Harry Rapp, Chicago, Ill.
Theodore Turnage, Farmville, N. C.
Howard Sala, Brooklyn, N. Y.
John Graham, Jr., Dallas, Tex.
Sanford Binns, Richmond, Va.
Charles Potts, Faribault, Minn.
William Schroeter, Faribault, Minn.
William King, Faribault, Minn.
Perry J. McKay, Faribault, Minn.
David Evans, Faribault, Minn.
Paul F. King, Faribault, Minn.
William McKim, St. Louis, Mo.
Louis Blumer, St. Louis, Mo.
William Wolfe, Chicago, Ill.
Fred Schulz, Chicago, Ill.

Five names have also been added to the Honor Roll of Distinguished Riflemen. Having completed the course we trust that these members will continue their interest and pass on to other Junior members of their communities this training by coaching and taking on a live group of youngsters as assistant instructor. There are, however, other fields to conquer, and we look for their accomplishment in the N. R. A. Senior program.

DISTINGUISHED RIFLEMEN

John Daniel, New York, N. Y.
J. D. Cascone, Brooklyn, N. Y.
William F. Schroeter, Faribault, Minn.
David McDougal, Washington, D. C.
Perry J. McKay, Faribault, Minn.

TULSA HIGH WINS OKLAHOMA STATE SCHOLASTIC RIFLE MEET

THE University of Oklahoma leads the way by including marksmanship contests in the annual interscholastic meet. About forty boys and girls participated in a three-day, small-bore rifle contest. The matches were

held on the University campus at Norman, the R. O. T. C. pistol range being used.

Three matches were held, the first one being called the Individual Rifle Championship. The competitors might use any rifle adapted to .22 rim-fire ammunition, iron sights, and at least a three-pound trigger pull. The distances were 25 and 50 yards. The second match was called the High School Team Match; distance 50 yards, with the same type of rifle as above, five boys or girls to a team. The third match was known as the Hunting Rifle Match, and the shooters were permitted to use light hunting rifles of .22 caliber with open sights.

Bruce Wilson, Sapulpa High School boy, won first place and a gold medal in the individual match with a score of 275 x 300. Edward Luke, Ardmore, took second place and the silver medal, and Earl Grant, Tulsa, took third place and the bronze medal.

In the High School Team Match, Tulsa won first place and the silver cup with a

called off because of heavy rain and mud. On the second day a good-sized crowd of shooters were on hand by 8 o'clock, and by 9 about forty boys and girls were on the range with a hundred or so spectators. So far as the University was concerned, the match was an entire success, and it will be a regular part of the program on future meets. Although the range has ten targets and permits at least ten to shoot at a time, it is intended to increase the size of the range for next year and also add several more matches.

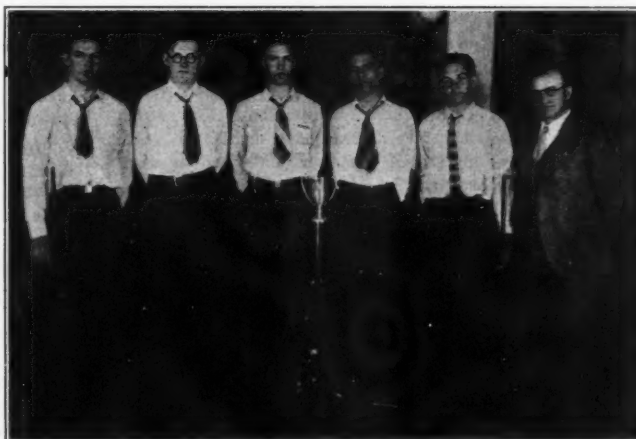
UNION ENDICOTT HIGH CELEBRATES ANNIVERSARY

THEIR first anniversary of affiliation with the N. R. A. Junior Rifle Corps was celebrated with great enthusiasm by the members of the Union Endicott High School, of Endicott, N. Y. The entire week end was spent at the Boy Scout cabin about eight miles from Endicott. Full enjoyment can be realized only by those who have been fortunate enough to experience this privilege. In addition to target practice, long-distance shooting was tried, in which several members showed remarkable accuracy. Everyone had his turn at carrying on the camp duties. Exploring parties were organized, and each one tried to lose the other in the dense woods surrounding the cabin. This afforded a great deal of merriment, and with ideal weather conditions everyone declared it the best time ever.

An annual meeting was also held by the Union Endicott Rifle Club at the home of Instructor E. L. Nichols. After re-electing officers and discussing activities for the new year, a musical program was given by members of the club and delightful refreshments served. The following report has been made by Robert Pearsall, secretary of the club: "During the Easter vacation many of the fellows were particularly active, and our gallery was cleaned, making plans for a new and efficient lighting system. The range was used some time back by the old Union Rifle Club, now dissolved. Sand in the bunkers was screened, and about 100 pounds of lead extracted, which when sold will net the club a good sum for the treasury. We felt that our club has made remarkable progress during their first year and all have resolved to show greater accomplishments in the future."

MOSTLY PERSONAL

AMONG our many inquiries and target qualifications from affiliated members and clubs we were pleasantly surprised when opening several packages from the Shattuck School Rifle Club, of Faribault, Minn. This club, under the direction of Mr. Russell Kiker, has been under way but a short time,



TULSA HIGH SCHOOL RIFLE TEAM

Left to right: Charles Buchner, Paul Poffenberger, Earl Grant, Frank Grant, Maynard Burleigh, and J. Howard Engle, Coach

score of 899 x 1,000. The Luther High School Team took second place. Two girls—Madeline Haig and Evelyn Atteberry—shot on the Luther team and shot very well, too.

In the third match, Winford Davison took first place, Edward Luke second, and Bruce Wilson third.

The Interscholastic Meet is an annual affair provided by the University and intended to bring the high-school boys and girls of the State to the campus for a two or three day visit and acquaint them in a very limited way with the State University. A great variety of contests are provided, such as baseball, track, singing, dramatic art, the curricular contests, radio, and drawing. This year marksmanship contests were included.

Between four and five thousand boys and girls come to Norman each year for the meet, but no one had any idea that so much interest would be taken in marksmanship. Heavy rain prevailed over the State for two or three days before the meet, which kept a good many away, and on the first day of the meet all outdoor contests were

having been chartered during the month of February. Six complete sets of qualifications, including the bars through Expert Rifleman, were rescored at Headquarters in addition to qualifying targets for two Distinguished Rifleman. This record certainly shows the consistency of these members and the complete instruction given by Mr. Kiker.

Qualifying targets for the last four bars of the Expert Rifleman course, also the complete qualifications for the Distinguished Rifleman Bar, were sent in to Headquarters by John C. Daniels just before his 19th birthday. Having become ineligible for Junior membership John has affiliated as a Senior member of the National Rifle Association and will continue in the wider field of promotion. The following gratifying paragraph has been received from Daniels: "I wish to heartily commend your system of Junior qualifications for its length and also difficulty, since I am sure that it was the only thing which induced me to fire between eight and ten thousand shots during the last few months."

The younger members of the Legion Rifle Club of Arkansas City, Kans., who are under the Junior Rifle Corps age limit are making rapid progress in the individual medal course. This club organized at the Y. M. C. A. holds membership in the Senior Department with Grant M. Acton as secretary. Qualifications for 44 Pro-Marksman, 1 Marksman, and 2 Sharpshooters have been recorded at Headquarters.

The Cretin High School Rifle Club, of St. Paul, Minn., increased its victories by another point in the recent shoulder-to-shoulder match fired with the Shattuck School, of Faribault, Minn., on the Cretin High range. Their total team score was 1,746 out of a possible 2,000, while the Shattuck team totaled 1,729. High scores of each team were made by Geraghty and Johnson with totals of 353 and 360 points, respectively. The match was a very close one, as was expected, for Cretin won second place in the 7th Corps Area Match fired a short time ago, with the Shattuck School coming in third place with an extremely close score.

Preparations have been made for another match between Cretin and Shattuck to be fired on the Shattuck range at Faribault, and we are anxious to know of this outcome.

As a reminder of the advancement made by the Junior Rifle Corps and our pleasant relations during this promotion we have received the following telegram from Instructor Philip Sharpe: "My greetings go forth to Headquarters on my ninth anniversary as an instructor of the Junior Rifle Corps. I am one of the few remaining charter members and am proud of it."

The Pawnee Rifle Club, of Bronx, N. Y., is fast becoming one of the most active

clubs of the Corps. We are kept busy with the many individual qualifications made from time to time by these members, in addition to their entry in the biweekly matches. Here is another bit of news reported by Instructor Kassey: "The Pawnee Rifle Club recently held an innovation in the form of an individual match among the members. The results were gratifying. The club was divided into three groups, so as to give everybody an opportunity to win one of the three circus tickets to Barnum and Bailey. Much to our surprise Bobby Schlechter won the class A ticket despite the presence of the club champ, Jack Grady. In the B group Ingall Russel was successful, while in the C group we had our biggest surprise—Joseph Fearn, a recently admitted member whose previous rifle experience accounted for but five shots prone, won the class C match with a 43 x 50 and a 30 x 50. The club's next event will be its first shoulder-to-shoulder match."

Rifle-shooting is successfully under way at the Logan County Industrial Arts High School, of Sterling, Colo., under the direction of Mr. H. G. Shaw. In addition to the many individual qualifications for which these members are eagerly firing we have been advised of a match conducted between the boys and their fathers who are members of the Senior Club. Although no official information has been given of the scores made in this contest, we are sure that a lively time resulted.

Since last writing of our adult leaders who are preparing themselves for the instruction of rifle-shooting we have received at least 70 additional requests from leaders who wish to complete the correspondence Instructors' Training Course in ten lessons and receive their commissions as Instructor of the N. R. A. Junior Rifle Corps. Of this number 17 satisfactorily completed the course and received their commissions. A like number have submitted qualifying targets for the Instructors' Medal. Those recently commissioned are as follows:

Robert Vincent, Andover, Mass.
R. R. Swain, Pratt, Kans.
J. W. Stuart, Omaha, Nebr.
J. A. Shaw, Norristown, Pa.
Richard Schroeder, Newton Highlands, Mass.
James B. McLester, Brookline, Mass.
James Lowry, Franklin, Pa.
Leslie Lafayette, Plymouth, Mass.
C. A. Jenkins, Hazleton, Iowa.
A. H. Jacobson, Chicago, Ill.
J. S. Humrichouse, Kankakee, Ill.
Paul C. Hoopes, Roselle, N. J.
A. E. Bullers, Franklin, Pa.
Robert V. Bernier, Mendota, Minn.
Jerome Kestler, Richmond Hill, N. Y.
Albert T. Perry, Windsor, Ohio.
William H. Willett, Cheyenne, Wyo.

Camp Tay-Low, directed by the Mobile Council B. S. A., of Mobile, Ala., is getting

an early start for the camp season by affiliating and also submitting the requisition for supplies in ample time for Headquarters to complete records before the usual rush. In addition to affiliating as a club, Mr. R. J. Seeger, Scout Executive and Instructor of this club, has requested a supply of individual application forms for affiliating many of the members as individuals of the Corps. This is a fine plan and one that we are encouraging all clubs to follow. When members have severed their connection with camp and returned to their homes they may continue with this year-round activity and qualify for higher honors.

To increase enthusiasm among the campers and select a team to represent the city of Mobile in competitive matches during the year, the camp will be divided into cabins containing ten boys each and having three periods on the rifle range each week. The highest scorers in each cabin will compete with the other cabins' highest scorers at the end of each week. The ten highest scorers for the entire season will compose the Mobile Rifle Team.

From all reports received from Mr. Howard Gale, of Charleroi, Pa., prospects for organizing the Junior sport of rifle-shooting are steadily increasing. The co-operation and support of the local newspaper as well as the business leaders of the city has been of great aid in the drive for members. Until a sufficient number are enrolled for organizing as a club, Mr. Gale has requested that each member affiliate as an individual member of the association, also obtaining the full consent of their parents to be indicated on the individual application. Already several members have been recorded at Headquarters and we believe it will not be long before Mr. Gale's aim is fulfilled, "to put the town on the map in rifle-shooting."

Unfortunately the activities of the Larchmont Junior Rifle Club, of Larchmont, N. Y., have been temporarily suspended due to the loss of their range at the St. John's Parish Hall. The room formerly occupied by the rifle range has now been cut up into committee rooms and all target equipment removed. However, Instructor George Towle, leader of this group, writes us that the interest is in no way dampened and the club is "rarin' to go."

As the Larchmont outfit has been in the field for several years many of their former members have become overage, and their progress is unknown to us. Instructor Towle has informed us that several of these members have taken advantage of their training received in the Junior Rifle Corps and have become instructors and rifle counselors in the various summer camps throughout the country. One fellow has enlisted in the Marine Corps and is now at the head of his branch in their rifle activities. Betty Towle, yet an active member of the club, is well on her way to the Distinguished Rifleman award. Best wishes are extended for her success.

Ammunition Test

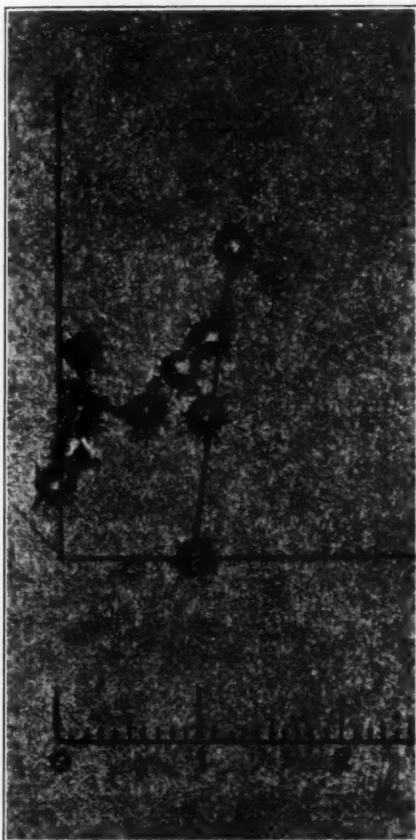
(Continued from Page 15)

Rest No. 1	11	3.25	3.43	3.08	3.45
Mann barrel receiver					
No. 1276929	12	3.28	3.08	3.48	3.85
30 inch barrel, No. 409,					
fired 130 times	13	2.70	2.65	2.75	3.00
	14	2.62	3.20	2.05	3.80
	15	3.26	2.54	3.98	4.00
		15.11	14.90	15.34	18.10
Mean		3.02	2.98	3.07	3.62
Rest No. 1	16	2.98	2.48	3.48	3.50
Mann barrel receiver					
No. 1276939	17	2.97	2.50	3.45	4.10
30 inch barrel, No. 410,					
fired 130 times	18	3.13	3.00	3.27	3.90
	19	2.35	2.25	2.45	2.80
	20	3.06	2.54	3.58	3.64
		14.49	12.77	16.23	17.94
Mean		2.90	2.55	3.25	3.59
Grand average		2.91	2.83	2.99	3.63

It will be noted that the grand average for test Lot No. 1 as compared to that of test Lot No. 2 is as follows:

	F. of M.	Ex. ver.	Ex. hor.	Ex. spd.
Lot No. 1	2.85	2.49	3.21	3.54
Lot No. 2	2.91	2.83	2.99	3.63

Photographs of targets obtained with the 1928 International Match ammunition are shown herewith.



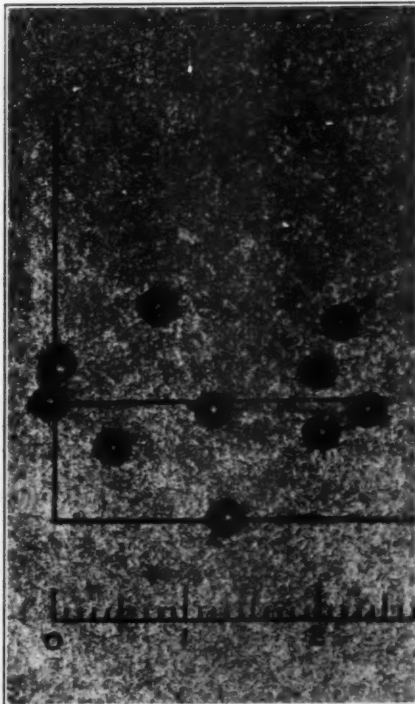
Test lot No. 1: 300 meters. Mann barrel No. 410. Figure of merit, 1.72; extreme vertical, 2.20; extreme horizontal, 1.25

The average results obtained with the 1927 International Match ammunition were as follows:

Figure of Merit	Ex. ver.	Ex. hor.	Ex. spd.
2.53	2.11	2.96	3.33

Although the results obtained with the 1927 ammunition are slightly superior to those obtained this year, it will be noted that the velocity of the 1928 ammunition is considerably greater than that of 1927, and thus the time of flight and barrel time will be greatly reduced. It is, therefore, anticipated that under good weather conditions the 1928 International Match ammunition will give results equal to any produced heretofore.

As a result of the above test an order has been placed with Frankford Arsenal for the manufacture of a sufficient quantity of International Match ammunition of 1928 to provide for training of the team before its departure for Holland and for sufficient training abroad before the matches to insure that all contestants will be thoroughly familiar with the arm and ammunition used in the International Match firings. Lack of practice with the particular type of arm and ammunition has greatly handicapped teams of previous years and has undoubtedly been one of the factors in their losing first place in the International Matches.



Test lot No. 1: 300 meters. Mann barrel, No. 416. Figure of merit, 1.99; extreme vertical, 1.60; extreme horizontal, 2.38

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912.

OF THE AMERICAN RIFLEMAN, published monthly at Washington, D. C., for April 1, 1928.

City of Washington, District of Columbia, ss.: Before me, a notary public in and for the District aforesaid, personally appeared Laurence J. Hathaway, who, having been duly sworn according to law, deposes and says that he is the editor of THE AMERICAN RIFLEMAN, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912,

embodied in Section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, National Rifle Association of America, Washington, D. C.

Editor, Laurence J. Hathaway, 816 Barr Building, Washington, D. C.

Managing Editor, none.

Business Managers, Executive Committee, National Rifle Association of America.

2. That the owner is: National Rifle Association of America.

That the principal officers are:

Lt. Col. L. M. Rumsey, St. Louis, Mo., President.

Hon. Benedict Crowell, Cleveland, Ohio, First Vice-President.

Maj. Gen. F. C. Ainsworth, Washington, D. C., Second Vice-President.

Col. G. A. Fraser, Bismarck, N. Dak., Third Vice-President.

Brig. Gen. M. A. Reckord, Baltimore, Md., Executive Vice-President.

C. B. Lister, Washington, D. C., Secretary-Treasurer.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company, but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest, direct or indirect, in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is— (This information is required from daily publications only.)

LAURENCE J. HATHAWAY, Editor.

Sworn to and subscribed before me this 5th day of April, 1928.

ROGER L. CALVERT,
Notary Public.

(Seal)
(My commission expires February 18, 1929.)

INTERNATIONAL TEAM FUND

(Continued from Page 30)

Harry A. Webster, Lancaster, Pa.	6.00
Henry D. Prescott, New Bedford, Mass.	5.00
P. E. Peterson, Los Angeles, Calif.	2.00
C. Lee Curtis, Portland, Oreg.	1.50
Ben Ziesman, Hyattsville, Wyo.	2.00
E. E. Cunningham, Russell, Ky.	2.00
G. W. Aiken, San Diego, Calif.	2.00
J. Tenney Spofford, Malden, Mass.	2.00
Fred A. Shubert, Erie, Pa.	5.00
Herbert A. Claiborne, Richmond, Va.	4.00
John Wright, Fowler, Kans.	2.00
Fred Lange, Cohocton, N. Y.	2.00
William Praegitzer, Kimama, Idaho	1.00
O. E. Huft, Cleveland, Ohio	1.00
Gordon Bass, Tucson, Ariz.	2.00
Norman H. Pritchard, Chicago, Ill.	5.00
Wm. Bruce, Monterey, Calif.	1.00
H. C. Moore, Prairie du Sac, Wis.	1.00
Clay Wintersteen, Collbran, Colo.	2.00
Harold Ladd Bliss, Anchorage, Alaska	1.00
G. M. Vickroy, Montgomery Creek, Calif.	1.00
Howard W. Sala, Brooklyn, N. Y.	1.00
John Praegitzer, Kimama, Idaho	1.00
Rev. Chas. V. Burkliiser, Nebraska City, Nebr.	1.00
Wm. Brazelton, Houston, Tex.	2.00
Eugene Page, Seabright, Calif.	1.00
Lt. Paul A. Shepherd, Plainfield, N. J.	1.00
Vincent G. Hazard, Wilmington, Del.	5.00
Arthur P. Phillips, Buxford, Mass.	5.00
Wm. Clement, Palacios, Tex.	1.00
Earle A. Titus, West Medford, Mass.	2.50
Harry C. McGinley, Houlton, Me.	2.00
E. W. Zoekler, Wheeling, W. Va.	1.50
Edson Klinkel, Toledo, Ohio	1.00
R. C. Wheeling, Wheeling, W. Va.	4.50
Fred W. Sutton, Brooklyn, N. Y.	2.00
Curtis I. Gilbert, Washington, D. C.	1.00
L. P. Btel, Pittsburgh, Pa.	2.00
Lewis A. Shell, La Junta, Colo.	5.00
Maurice D. Wilt, Philadelphia, Pa.	5.00
Chas. F. Friedrich, Rochester, N. Y.	2.00
Ralph W. Hawthorne, Elgin, Ill.	1.00
D. C. McDougal, Washington, D. C.	10.00
W. C. Clark, Dagupan, P. I.	1.00
Bert Bugden, Kibbie, Mich.	1.00
Chas. W. Burr, Eureka, Calif.	1.00
Col. A. J. Macnab, Mexico City, Mexico	10.00
Total	\$693.66



Conducted by Lient. Col. G. C. Shaw

Address: Director Civilian Marksmanship, War Department, Washington, D. C.

FITTING BARRELS AND RECEIVERS

PROSPECTIVE purchasers of barrels or receivers for the Model 1903 rifle are reminded that they must make provision for assembling the part purchased. This fitting must be made at Springfield Armory unless the purchaser states that he is able to do the work himself or has a competent gunsmith who will do the work for him. Fitting barrel to receiver at the Armory the charge is \$1; fitting barrel to receiver and bolt, \$1.25; fitting barrel to receiver, bolt, and complete rifle, \$1.50. These charges must be added to the cost of material purchased. Anyone desiring to purchase a new barrel should write to this office, sending in the funds to cover cost of material, fitting charges, and packing charges. This office will then authorize the work to be done and send you instructions relative to shipping the rifle, or receiver, or whatever it is, to Springfield Armory. Do not ship any material to this office, as no repair work is done here. It delays matters, for then this office must collect transportation charges from the purchaser, and reship the material to the Armory. This all takes time and causes delay.

MODIFIED RUSSIAN RIFLES

THIS office is taking orders for Russian rifles modified as described in a recent article in *THE AMERICAN RIFLEMAN*. This work is being done only at Benicia Arsenal, and costs as follows:

First Modification: Cut down barrel to 24 inches and affix Model 1903 front sight; work down stock; reshape bolt handle; put on Krag lower band and butt swivel for sling	\$3.21
Cost of rifle	3.34
Total cost	\$6.55

Second Modification: In addition to the above, remove present rear sight and rear sight fixed base; drill and tap holes for Lyman No. 36 rear sight (this leaves rifle without rear sight, which must be obtained elsewhere); additional cost	\$.75
Total cost of modified rifle	\$7.30

When submitting orders be sure to state whether you want one or both modifications, and be sure to send the proper amount of funds. There is no packing charge on this rifle.

MODIFIED KRAGS AVAILABLE

INFORMATION has been received that Benicia Arsenal will modify the Krag rifle, by cutting it to carbine length (22

inches), and fitting the Model '03 front sight. The cost of the modified weapon will be \$3.50; no packing charges. Anyone desiring one of these guns should send remittance to this office, made payable to the Director of Civilian Marksmanship.

REGARDING REMITTANCES

A NUMBER of remittances have been received in this office recently that could not be accepted due to the fact that they were not properly drawn. Personal checks can not be accepted, and members of the N. R. A. are requested to make all remittances to this office in the form of money orders, bank drafts, or certified checks. Remember that personal checks will not be accepted, and must be returned to the sender, thereby causing delay in forwarding your order, and the consequent delay in the receipt by you of the desired material.

Another thing to remember is to make all remittances, and address all letters to the *Director of Civilian Marksmanship* and not to any individual. Individuals change, while the office is permanent.

SUGGESTION

IT IS suggested, and also urged, that everyone desiring to purchase material send in their orders as far in advance of the time they want the stores as possible. Anticipate your needs for the fall hunting trip, for Camp Perry, or for any other particular thing, a sufficient length of time in advance so that you will be sure to have the desired article when you need it. This refers to the rifle, the ammunition, or any spare parts that you may want to put your gun in good shape, or to any other wanted material.

Remember that it takes time for your letter to reach this office; it takes more time for a letter to go from this office to the arsenal or depot. It takes time to write up your order here in this office. It takes more or less time to prepare your stores for shipment at the arsenal; and then it takes more time for the transportation company to get the package to you. Experience has shown that this time averages six weeks. Therefore anticipate your needs at least six weeks, and if possible two months. And above all please wait at least six weeks before writing in asking where your rifle, or what not, is. Within a reasonable time after the order is received in this office, you will receive notification that your order has been for-

warded, and then within six weeks the material should arrive. Sometimes material is received much more quickly, but it can not be depended on as a general rule.

TRAINING REGULATIONS

RIFLE Marksmanship (T. R. 150-5, 10 cents; and T. R. 150-10, 5 cents); Pistol Marksmanship (T. R. 150-20, 10 cents); Construction of Small-Bore Target Ranges (T. R. 1340-B, 5 cents) may be obtained from this office or from the Superintendent of Documents, Government Printing Office, Washington, D. C. It is suggested that orders for these be sent there as it saves time.

SPORTERS AND M1 RIFLES

A SUFFICIENTLY large quantity of these two very desirable rifles is on hand to take care of all current orders promptly. Now is the time to order that Sporter for the fall hunt, or that M1 for the small-bore matches that are coming along now pretty fast. It would be well to get in your order soon so that you will have time to get the gun well sighted in before the matches start. The price of each of these popular rifles is \$46, plus \$1.34 packing charge for one rifle. If two of these rifles are ordered shipped together, the packing charge is \$1.65. Quite a few are buying one of each, and it is thought that they make a very fine pair. Both have the same feel and same outward appearance. It is easy to change from one to the other and do equally good work. The Sporter may be used for firing the qualification course by members of the civilian rifle clubs.

USED NATIONAL MATCH RIFLES

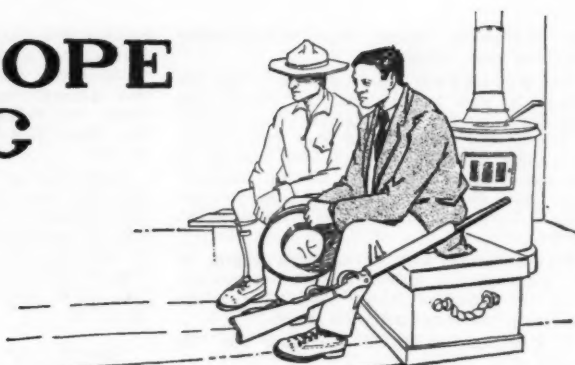
THERE are a few used National Match rifles on hand. These rifles have been used in the National Matches, but have been inspected, and are considered serviceable, but are not guaranteed. Some of these rifles were used for only a couple hundred shots or so; others may have had quite a little more use. Anyone wanting to purchase a National Match rifle at a reduced cost, may do so for \$35.48, plus packing charge of \$1.34. It is believed that anyone purchasing one of these used National Match rifles will obtain a good gun—one that will do good accurate shooting, and prove satisfactory in every way. Send in your order promptly, for the supply will not last long.

SPRINGFIELD SPORTERS AND CALIBER .22 M1 RIFLES

THE popular Springfield Sporter and the Springfield .22, Model M1, are on hand in ample quantities to take care of all orders promptly. Shipments of these rifles are made within a very few days after receipt of orders in this office. The price remains the same for each one—\$46, plus the usual \$1.34 packing charge. These two rifles make a very fine pair, as they are almost identical in appearance. When shipped together, packing charge is \$1.65.



THE DOPE BAG



A Free Service to Target, Big Game and Field Shots—All questions answered directly by mail

Rifles and Big Game Hunting: Lt.-Col. Townsend Whelen

Pistols and Revolvers: Major J. S. Hatcher

Shotgun and Field Shooting: Captain Charles Askins

Every Care is used in collecting data for questions submitted, but no responsibility is assumed for any accidents which may occur.

Shocking Power, Cleaning Dope, and the .45 Ejector

By Maj. J. S. Hatcher

REFERRING to your book, "Pistols and Revolvers": If the 200-grain .45 automatic bullet has a higher velocity and greater energy and shocking power, both at muzzle and 100 yards, as you show, why does the Service use the 230-grain bullet? The latter must produce more recoil, and the increased weight, one would think, would be an item in supplying a division of men with reserve ammunition.

On pages 164-5 you say: "Clean your gun either with water or with some of the newer cleaning fluids that are especially designed to remove potassium chlorides."

Will you give the name of one or more of these new fluids? Do you believe that the several well-known nitro-solvent oils on the market endanger a barrel by failing to remove potassium chloride? And would you recommend that we cut the Gordian knot by using the new noncorrosive primers that are now being announced for virtually all center-fire cartridges?

You pay a very beautiful tribute to the .45 Colt automatic, which struck home with me. I love this gun. In performance, safety, mechanical ingenuity, smoothness of function, etc., it is a joy. The only thing it lacks is an automatic magazine safety. Would the Army object to such a feature?

But you say, "Frequently it will eject the cartridges into the face or eyes of the shooter." That is a damaging indictment. My gun has never yet played such a scurvy trick on me. Is it likely to? And if it should, what is the remedy? And are the ejected cases likely to damage the skin or eyes or break eyeglasses?—E. E. P.

Answer (by Major Hatcher). In regard to your questions, I will answer them in the same order in which you have asked them.

The table of the shock power does not tell everything about this subject. This table assumes that all the energy in the bullet is used up in the body of the person whom it strikes. If it, passes entirely through, only a fractional part of the energy is used up. The 200-grain bullet, with its high velocity, will go entirely through a man at any reasonable short range. The 250-grain bullet, with its lower

velocity, does not have so much penetration; therefore will leave the larger portion of its energy behind. Moreover, if two bullets penetrate all the way through a person, the one which goes through the slower seems to expend more energy in doing it. Therefore, the very maximum effect against a living target at short ranges is due to a very heavy bullet with relatively slow velocity. This is the theory of the British Webley, Mark II, which has a 275-grain bullet and only 600 f. s. velocity. The time when the 200-grain automatic shows up its superiority is when you use it against a very large animal, such as a grizzly bear, where it will not go all the way through. In this case, very deep penetration is wanted, and the 200-grain bullet is superior. Another thing in favor of the 230-grain bullet is that it has a higher ballistic efficiency. In other words, it loses less of its resistance by air pressure.

The best cleaning fluid that I know of is Chloroil, which is usually advertised in the **RIFLEMAN**. This will remove potassium chloride and protect the gun from corrosion. Some of the nitro-solvent oils on the market do very well indeed, but in my opinion none of them is as good as Chloroil.

I would recommend using the noncorrosive primers by all means. Even with the best of nitro solvents, certain cartridges are very destructive to rifles and revolvers. One of these is the .25-20. Another is the .22-caliber in smokeless. When these cartridges are used, there is no way in which a rifle can be stopped from becoming pitted in a short time. Even the most careful cleaning will not save it. Now the noncorrosive primers when used with the same cartridges will prevent this pitting, and even when the gun is not cleaned at all it will last for years when noncorrosive ammunition is used.

I do not believe that the Army would object to a magazine safety. It simply was not thought of at the time the Automatic first came out. In regard to the ejection of cartridges into the face of the shooter, this is something that occurs with certain guns and not with others. It is due to the shape of the ejector, and can be overcome by shaping it properly. If your gun does

not do it, it is not likely to, but if it should do it, the thing to do is send it back to the factory and have it corrected. The ejected cases will not affect the skin or break the eyeglasses, but with a gun having this fault, they are likely to cause flinching. I do not think you need anticipate such trouble if your gun does not do it, because it is a fault that always occurs with some guns and not at all with others, due entirely to the shape of the individual ejector in the gun.

IF YOU VALUE YOUR LIFE STEER CLEAR OF THIS STUFF

THANKSGIVING DAY four of us went into the woods looking for squirrels. The party consisted of the farmer, the farmer's son, a negro tenant hereinafter referred to as "George," and the writer.

The boy carried a single-barrel shotgun with some sort of a bolt action. Presently he got a shot at a treed squirrel, and missed. The leaves were still on the trees and his miss was easily marked. His father chided him for missing, told him he would have to do better next time—and his next shot was a miss. Then the squirrel made a get-away, while in reproof the father made the boy hand the gun over to George for the next shot. The boy was insistent that the fault was not his; that the shots had been well held but the gun wasn't shooting straight.

A little later two squirrels were put up adjacent trees, and while I tried to work my squirrel around to where I could snipe him with the .22 George fired at his. A miss. Then commotion while he tried frantically, and vainly, to load the next shot from the magazine. Seemed as if the bolt wouldn't turn up as it should. Then I lost my squirrel and turned to George to be of any assistance I could. Sure enough, the bolt handle wouldn't turn up. Felt like a swelled case. But what could there be about that paper shotgun case that could make it stick that tight? After some jiggling we succeeded in turning up the handle and drawing the bolt back. Then on closing, the bolt would not cam itself forward, but the handle could be turned fully down with the bolt still about a half inch short of being closed. In this position it was not cocked. On closing with a forward thrust on the handle, as in the 1917 Springfield, the action could be closed, cocked, and snapped. On the open-

ing movement there was considerable grabbing and scratching.

On withdrawing the bolt from the receiver it was found that the safety lug had been broken completely off. Except at one corner the fracture was well rusted, indicating that the lug had been nearly off for some time. This was getting interesting. We didn't see why the safety lug should have let go first. We investigated further.

The receiver was of German origin, of the Mauser type, and of the size commonly used for rifles of about .30-caliber. The following changes had been made:

1. Magazine modified to take one 12-gauge shell.

2. Receiver ring enlarged inside to take shotgun barrel. That portion of the ring back of the barrel where the grooves for been bored out to take the shotgun shell and only a trace of the grooves remained. This bore is larger than the outside of the locking lugs on the bolt, and the front end of the bolt is therefore without support against the explosion.

3. The front end of the bolt was faced off slightly and the striker hole enlarged to the full diameter of the barrel portion carrying the mainspring.

4. The disk approximately the diameter of the shell was fitted to the front end of the bolt. This disk was provided with a hub on one side which fitted into the enlarged hole in the front end of the bolt. Thus fitted the disk served to center the otherwise unsupported front end of the bolt. The disk also carried the striker, a separate piece in line with the original firing pin and actuated by the firing although not attached to it.

5. The extractor was fitted with two notches. One hooked over the edge of the disk and held it against the face of the bolt. The other notch was the regular extractor hook for pulling fired cases.

Fitted up in this way the only thing between the shooter and a blown-out bolt is the safety lug. And here the safety lug had let go! It seems to us that the safety lug must have been all but off for some time, probably hanging just a little by one corner. That it did not permit the bolt to blow out immediately is probably due to a portion of the bolt wall being broken out with it so that the loose piece served as a key. Had the lug sheared off instead of breaking out as it did the bolt could have come back. As it was, the loose lug probably let the bolt set back considerably in firing and may have accounted to some extent for the three wild shots made before it failed completely. This would also account for the handle being hard to turn. The piece had turned or rolled slightly and in rolling had wedged in the receiver. When the action was finally worked open it quietly fell out into the leaves and we never found it. One corner of the lug about a thirty-second of an inch high was still on the bolt. It was hard and sharp and accounts for the scratchiness on working the action. It stuck up just high enough to hold the bolt up against the thrust of the mainspring in closing and it was entirely possible for the piece to have been fired in this condition.

If you would care to have this wreck for your museum we will probably be able to get it for you. So that nobody may accidentally kill himself with it we have the bolt already.

There are undoubtedly numbers of these worked-over and dangerous war relics in the hands of incautious owners who are

relying upon the general reputation of the bolt action as being perfectly safe.

Assuming that you agree with us as to the general unreliability of these guns, don't you think your mention of them in the Dope Bag might perhaps save a life or so?

Just suppose George had been able to get the bolt down on that second shell! Or suppose I had been close enough to him to have taken the gun from him and, by rushing the bolt, accidentally got that jagged corner of the lug to hold up against the shell while I pulled the trigger!—M. G. S.

Answer (by Colonel Whelen). I congratulate you and George in having escaped what might have been a most serious accident.

I have heard of these Mauser rifles converted into shotguns, but have never seen one. I do not see how anyone dare send them out made up in this way with only one locking lug—the safety lug. The safety lug may be strong enough ordinarily to hold, but you have nothing in reserve if it gives way. Now with the standard Mauser rifle you have really three lugs, the two front locking lugs, and the safety lug, and you are morally certain that all three of them will never go at once with any cartridge that is anything like normal.

AMMUNITION DOES NOT SUIT GUN

BEING a member of the N. R. A. I am taking the advantage of asking your opinion on a certain trouble I have with every rifle I shoot in our local turkey and chicken matches.

Inclosed you will find my target for our last shoot. We shoot one shot for a center, just a plain X, the shot nearest to where the 2 lines intersect being the winner. I take it for granted you have attended some of the matches and know what I mean.

You will notice on this target there are 9 shots in the 10-ring, 3 at 11.30 o'clock, and one at 10. I was shooting from a rest, using my B. S. A. .22 rifle, peep and aperture sights, Kleanbore ammunition.

Now, what I would like to know is, what to your way of thinking would cause those four wild shots? They are all in a good group for the distance we were shooting (50 yards).

I could almost swear I did not pull off, and if I had it is not likely I would pull them all so near the same place. If I had continued shooting there I would say it was the light, the ammunition, the sight, or me; but to go back into the 10-ring every time, it gets me how it happens.

I always had the same trouble with my Winchester single shot, and my Stevens when I used them and would like to know what would cause this variation.

It may interest you to know this group only won 3 chickens with my center in the heart of the 10-ring group.—M. A. B.

Answer (by Colonel Whelen). If you will look at a lot of .22-caliber bullets through a strong magnifying glass you will see imperfections which are sufficient to cause the off-shots you describe. Added to this, the amount of priming composition is not precisely the same in every cartridge, and the particular lot or make of cartridges that you are using may not be exactly the best fit for your rifle.

Such groups as that which you inclosed are common with even the very best .22-

caliber rifles. Often they are due to the rifleman himself, but often also they are due to the ammunition not being exactly right or not a correct fit for the rifle.

With a given make and lot of ammunition a fine .22 small-bore rifle may give $\frac{1}{8}$ -inch groups at 50 yards, or it may give $2\frac{1}{2}$ -inch groups. You can not foretell in advance, but some good make and lot of ammunition ought to give from $\frac{1}{8}$ -inch to $1\frac{1}{4}$ -inch groups in that rifle right along in good weather conditions—that is, in medium summer temperature. All .22 rifles shoot rather poorly in very cold or very dry weather, due to the lubricant or fouling being too hard. Every noted shot tests out from rest a number of makes and lots of ammunition in his rifle, and selects for competition the make and lot which does the best work. By lot I mean ammunition from one large box of 10,000 to 20,000 rounds as it is packed in the factory, assuring ammunition made on one day and loaded on one machine. Often one box of a certain make may do poor work, and another lot of exactly the same make may give fine accuracy. This last season I found that a certain lot of Remington Palma (not Kleanbore but Lesmok) gave the best accuracy in my own B. S. A.; but that is not saying that the next time I tried it, not being able to get that same lot, some other make of ammunition might not be found to be the best.

Eyesight also has a lot to do with it among skilled rifleman. We find, for example, that a man's eyesight changes quite a little during the first string he shoots. To get the best groups it is almost necessary to shoot ten to twenty shots without getting up or shifting around on the firing-point, changing the sighting gradually as the point of impact shifts, before the eyes seem to get down to a steady and uniform method of aiming.

ADVICE TO A BEGINNER

READING in the RIFLEMAN for October your answer to letter of W. M., and being likewise a beginner, I wonder whether you could send me also a list of books to be studied. I have thought my first rifle for target practice would be a Savage Sporter or 19 N. R. A. Will you discuss my choice?—N. H. N.

Answer (by Colonel Whelen). I am inclosing circulars of what are just about the best books for the beginner in rifle-shooting, either at target or at game. You should also have a copy of the "Ideal Handbook" (50 cents) from Lyman Gun Sight Corporation, Middlefield, Conn., and copies of the catalogues of the various arms and ammunition companies, which will be sent you on request.

With regard to your choice of a first rifle, I should not advise the Savage Sporter because it does not have two things which are absolutely necessary for good shooting—namely, a rear sight, with which the point of aim and point of impact can be brought to coincide at any range, and a shooting gun sling, without which one can not hold steady enough in the prone and sitting positions to come up into the first rank as a shot. I would rather suggest the Savage N. R. A. Model, or the Winchester Model 52 rifle. But if I were you before I got any rifle I should purchase Captain Crossman's book "Small-Bore Rifle-Shooting," and study it very carefully. It is an invaluable book alike for the beginner or the expert.

DOPE ON .45 COLT GUNS AND AMMUNITION

I AM contemplating purchasing a .45-caliber Colt single-action Army revolver. The man who owns it says that it is about twenty-five years old, but that it is in factory condition. He also says that it is a better-made revolver than what Colts are now making. Do you agree on this?

Is it safe to shoot cartridges loaded with smokeless powder in this revolver? I ask this because I am figuring on purchasing a case of Model 1909 ammunition from the D. C. M. I have been informed that the heads on these cartridges are so large that you can only load three at a time in the above-mentioned revolver. Is this correct?

Do the revolvers (Colt S. A. A.) that they now make have larger cylinders than the above-mentioned revolver?—M. B. D.

Answer (by Major Hatcher). I do not believe that the old Colt revolvers are any better made than the ones they are making right now.

Quite a few years ago, when smokeless powder came in, they made an improvement in the metal from which they made their guns, and used a steel which was strong enough to withstand smokeless powder, whereas the old guns were only intended for black powder.

I do not know the exact date of this change; but you can tell whether or not this gun is a smokeless-powder type or a black-powder type by looking at the number. Guns with numbers lower than 160,000 are the old black-powder type, and those over 160,000 have been tested for smokeless powder and can be used with either kind.

You are correct in assuming that the heads of the cartridges gotten from the D. C. M. are too large to allow six to be placed in a single-action at one time. These cartridges were made at Frankford Arsenal for the U. S. Army, Model of 1909, revolver, which is the same as the Colt New Service double-action.

The Colt single-action Army revolvers that are made today do not have any larger cylinders than the old one that you are considering purchasing, and the .45 Colt cartridge purchased commercially will fit in any of these Colt single-action Army guns.

The .45 Colt cartridges purchased from the D. C. M. will not fit in any single-action Army gun except three at a time, as you described above, but they will fit correctly in the Colt New Service .45. I hope that I have made this clear.

CAUSES OF LEADING IN, AND PROPER METHOD OF CLEANING, .22-CALIBER RIFLES

THE N. R. A. have just phoned me that they are in receipt of a postal from you asking for an immediate answer to your letter relative to the removal of leading from a .22-caliber rifle. I either have not received your letter or else I have answered it already. If your letter has not yet been answered it is because you did not address it properly. If you do not address letters of this kind to the Dope Bag Department, THE AMERICAN RIFLEMAN, Barr Building, Washington, D. C., it is sometimes a month before they get around to me.

A .22-caliber rifle, the bore of which has been kept in proper condition, does not lead in a way such that the lead can not easily be removed with a rather tight-fitting flannel cleaning patch. The patch pushed straight through the bore will bring out any little flake of lead on it. In the worst

cases in a good bore, a brass wire bristle brush run through the bore two or three times will bring out any lead that may be in the bore. Ordinarily a good .22-caliber rifle in good condition does not lead at all.

What most uninformed riflemen call leading is really a total ruination to the bore from corrosion due to lack of care. The bore has become badly pitted, and even if such a bore be cleaned free from leading, the first shot after the lead has been removed will again give a bad case of leading. The bore is pitted, and at the very first shot scrapes lead off the bullet, and is totally inaccurate. Sometimes lead can be removed from such a bore. Scrub the bore first with a brass wire bristle brush, then swab it for ten minutes or so with a flannel patch saturated with Winchester or Stazon rust-remover. Again use the brass brush, and again use the rust-remover. Then swab the bore with gasoline to remove all rust-remover, wipe the bore thoroughly clean and dry, and then swab into it thoroughly a heavy coating of mercurial ointment which you can get at any drug store. Let this remain in the bore overnight, wipe out, and put in a fresh coat of the mercurial ointment, and let it stay in until you are ready to shoot again. This will remove all or almost all of the leading in a pitted bore. Then the very first shot or two will again lead the bore. The only cure for a case of this kind is to buy a new barrel.

I think that it is most probable that if you have a bad case of leading it is because your rifle bore has become pitted, due to a lack of information as to how a .22-caliber rifle should be cleaned. If a .22-caliber rifle be cleaned by an improper or inefficient method, or if it be left uncleaned after firing overnight only once, or if a number of times it be left uncleaned for four or five hours after firing, it will become pitted and ruined. Properly cleaned at the proper time—that is, always within three or four hours after firing—a .22-caliber rifle should maintain its accuracy unimpaired, and give no trouble whatever from leading, for about 150,000 rounds.

The simplest and best way to clean a .22-caliber rifle is as follows:

Use a straight steel cleaning rod with a jagged tip, and Canton flannel cleaning patches cut to the correct size, so that several pounds' pressure on the rod will suffice to push the patch through the bore. If possible clean the rifle from the breech, but if it must be cleaned from the muzzle take care that the rod does not rub and wear the muzzle.

3. Saturate a cleaning patch with water or Chloroil and swab the bore with it. Repeat with several other patches wet with water or Chloroil.

2. Dry the rod, and using dry flannel patches, swab the bore thoroughly with five or six of them, until the bore is thoroughly dry and clean, and slightly warm from friction. If using water, cut the second patch used a trifle smaller than the others, as a bore wet with water is sticky when half dry and it is desired to avoid a patch getting stuck in the bore.

3. Saturate a patch with a good gun oil having a good body, and swab the bore with it. Or, if putting the rifle away for a time, use gun grease or mercurial ointment instead of oil. Wipe all oil or grease from the bore before beginning to fire again. Such cleaning will keep the rifle in perfect condition indefinitely, although it is always desirable with a .22-caliber rifle to wipe the bore out dry three or four days after firing and apply fresh gun grease. None of the so-called "powder solvents"

can be relied on to perfectly clean the bore, nor will any oil clean it. You must dissolve the primer-fouling with water or a cleaner containing water. Of course any water remaining around the extractor cut at the breech of the barrel or in the action must be removed or it will cause rust.

CONCERNING A GERMAN MAUSER

SOME time ago I became the possessor of a German Mauser carbine which I wish to restock and use with reduced and full loads if practicable. Removal of the original stock as issued for military service shows the barrel and receiver to be in what is apparently new condition. On the top and front of the receiver are these marks: "7, 61" and "Erfurt, 1918," and on the left of the barrel and forward of the receiver is the number 5308 with a letter "T" below, and on the left side of the receiver are three letters that seem to be "Lac" followed by the number "98." A lead plug driven through the bore measures .320.

Where can I purchase some suitable full loads for this rifle? The empties will be saved for reloading. Will the American military primer fit this cartridge? What is the bullet weight and velocity of the service load? Where can I purchase a suitable blank or semi-finished sporting stock for it? The barrel groove and receiver hole of the Springfield stock are slightly too large for a good fit. In your opinion would the gun be worth the cost of having a good job of restocking done by some one in the business?—I. W. D.

Answer (by Colonel Whelen). The carbine you have is a short military Mauser rifle made at the German arsenal at Erfurt. You are very lucky both as to its condition and its groove diameter of bore. The best ammunition for it is the 8 mm. Special Mauser cartridge made by the Remington Arms Co., having a 170-grain soft-point bullet, and giving a muzzle velocity of 2500 f. s. This cartridge ought to be quite satisfactory in your rifle; it is a fine big-game cartridge, and the fired cases can readily be reloaded, using any of the large-size American smokeless primers; same primer that the .30-'06 or any other large-size American cartridge takes. In reloading you can use either the Remington 170-grain 8-mm. bullet made particularly for this cartridge, or any of the various .32-caliber bullets made for the .32-40 or .32 Winchester Special cartridges. See the latest edition of the "Ideal Handbook" for full instructions. Also the book "Handloading Ammunition" has a lot of valuable information and pointers on reloading ammunition for the 8-mm. Mauser rifle. Don't make a mistake and get the 8-mm. Remington Mauser cartridge with 236-grain soft-point bullet, which I think will not give very good results. You want the 8-mm. special cartridge with 170-grain soft-point bullet.

The German service cartridge has a 154-grain steel-jacketed bullet, M. V. about 2,800 f. s. The cartridge is not particularly accurate, is not supplied in this country, the American primers do not fit the fired case, and the bullet is very wearing on the bore.

I would suggest that you write Mr. R. G. Tait, Dunsmuir, Calif., relative to a stock for the rifle. The action is the standard Mauser. Also see the Arms Chest of the October edition, THE AMERICAN RIFLEMAN, which contains a lot of advertisements of people furnishing stock blanks.

NEW FRONT SIGHT ON REVOLVER

WHAT kind of front-sight base would you recommend for single-action Colt 7½-inch barrel? I want something that will allow different heights of sights, as I use different loads. Front sight has been cut down somewhat, and this might be used as guide in fitting a band if necessary.—F. C. H.

Answer (by Major Hatcher). The best thing I can suggest to you in the way of modifying the front sight on your revolver is to file the front sight down until just a small lug remains, big enough to pin a new front sight onto. Then file out the new front sights to the proper heights to go with your loads, and file them with a slot in the bottom that will fit over the remains of the old front sight, and fasten in place with a screw or pin.

LOADS FOR THE 7.62 RUSSIAN

HAVING read the extremely interesting account in the recent issues of the RIFLEMAN about the Russian 7.62 and how it may be revamped into something really fit to be called a smoke pole, I became so enthused over it I have ordered one from the D. C. M., together with Colonel Whelen's book on "Amateur Gunsmithing"; and with what advice you all will be kind enough to give me I feel confident as to the results.

It is not the cheapest always that counts; to me it is producing something really worth while from an apparently hopeless article. I already have two Mausers, a Springfield, a Krag and a very fine muzzle-loading rifle; yet I believe the 7.62 will be the best of all—and besides, I shall have "did it myself."

The information I wish to obtain, and I feel sure Colonel Whelen will help me out, is:

What is the best cast bullet for the 7.62 to be used for target work at 150 to 200 yards? What is the best powder for above bullet and range? What is the best bullet for 600-yard range or better in jacketed bullets; and how many grains of what brand powder?

I want bullets that will not metal-foul my barrel any more than necessary.—E. S. R.

Answer (by Colonel Whelen). I have yours of the 8th relative to loads for the 7.62-mm. Russian rifle. In the first place you ought to send 50 cents to the Lyman Gun Sight Corporation, Middlefield, Conn., for a copy of their "Ideal Handbook." It contains all the information necessary for successful reloading, and I do not believe that anyone should reload at all until he has studied the "Ideal Handbook" carefully. In fact, no one is in a position to intelligently read what I write on reloading until he has the knowledge contained in the "Handbook." Most likely, however, you already have a copy.

The groove diameter of the Russian rifle bore usually runs from .312 to .314 inch. Lead bullets should be about .314 inch, if possible, but it is usually impossible to get moulds for that size unless one has the mould made to order. Very good results should be obtained with bullets measuring .313 inch, and such moulds should be easy to get. I should say that, first of all, you ought to measure the groove diameter of your barrel. If it is not more than .313 inch then .313-inch bullets ought to do finely. I should advise your writing to the Lyman Gun Sight Corporation, and ask them if they can furnish a mould for Ideal Bullet No. 311243, 154 grains, which will cast the bullet to .313 or .314 inch. If so, order this mould and also a neck-ex-

panding plug, which will expand the necks of fired cases to either .413 or .314 inch, preferably the latter if the bullet mould will cast that large. Use a powder charge of 12 grains' weight of du Pont No. 80 powder, and seat the bullet in the case with one lubricating groove exposed. This ought to give you a splendid load, good for at least 3-inch groups at 100 yards, or about 6½-inch groups at 200 yards. In reloading follow in other respects the instructions given in the "Ideal Handbook" for the similar load in the .30-06 cartridge.

For a 600-yard target load I should be inclined to try first of all the following load as promising the best results, although to my knowledge it has not been tried before. Obtain from the Western Tool & Copper Works, Station G, Box 57, Oakland, Calif., 100 of their 172-grain open-point copper-jacketed bullets for the .303 British rifle; cost \$2.70 per 100. Bullets measure .311 inch, and case necks should be resized and then expanded with a .309-inch plug. Use a powder charge of 45.5 grains' weight of du Pont No. 17½ powder. Muzzle velocity ought to be about 2,425 f. s., and the accuracy ought to be splendid.

None of the above loads will give any metal-fouling. You only get troublesome metal-fouling when you use a cupro-nickel-jacketed bullet at a muzzle velocity of 2,200 f. s. or over.

BOLT-ACTION TRIGGERS

I WANT to know if the Krag trigger can be changed to have only a short travel before firing. I like a trigger pull like a shotgun, and for hunting purposes the Krag isn't much good to me on account of the creep of near half an inch before tripping the hammer. I want the hammer to fall by the time the trigger moves about one-sixteenth of an inch or so. I am not much of a mechanic, but can the trigger be blocked so it will not move so far forward and still engage the sear safely?—K. W. H.

Answer (by Colonel Whelen). The trigger on a bolt-action rifle must of necessity be made differently from that on a lever-action repeater or single-shot rifle. The only proper way to manipulate a bolt-action mechanism is to work it fast and hard. The bolt should literally be jerked open and slammed shut. This not only makes for rapid fire, but it insures against possible jams from only half functioning the bolt. Now, if you will examine all bolt-action rifles you will see that if the bolt be slammed shut, the nose of the cocking piece on the bolt will come up with a whack against the sear, and if the sear does not stand up high at this time to give a surface for the nose of the cocking piece to strike against, there is liable to be serious trouble. For example, if the point of the sear were lowered so that only its very tip normally was in contact with the nose of the cocking piece, so as to insure the kind of a trigger pull you want, then it is likely that quite often when the bolt was closed fast the nose of the cocking piece would ride over the sear, and as a consequence the rifle would go off as you were closing it, and a serious accident might occur.

Therefore with all bolt-action rifles we make the trigger with a double pull. When the bolt is closed the sear nose stands up high against the cocking-piece nose. Then there is a preliminary pull for safety, which is sometimes called "slack." You first pull the trigger back about ¼ inch, it moving back against a pull of about 1¼ pounds.

The trigger should then become absolutely stationary, and not move any more at all until a total pressure of 3½ to 4 pounds has been applied on it, when it should suddenly give way and the rifle should be discharged. If there is any drag or creep at all after the slack has been taken out of the trigger it is most disconcerting, and no one can do any good shooting with such a trigger. The presence of this creep or drag in the main final trigger pull is a sign that the trigger has not been properly adjusted. Space prevents the full explanation of how to adjust a trigger and take the creep or drag out of it, but this matter is fully and completely explained in the book "Amateur Gunsmithing," where a complete chapter is devoted to it.

Now, it will be seen that the preliminary safety pull or slack is absolutely essential for the safety of the rifle, and it should, under no circumstances, be removed. This slack causes no trouble or inconvenience at all if you will accustom yourself to it in the proper manner. The way to do it is to so train yourself by constant trigger-squeeze exercises with an unloaded rifle so that as you place your rifle to your shoulder, or as you close the bolt in rapid fire, you at once close your trigger finger on the trigger with a pressure of about 1½ pounds, which will at once take up the slack on the trigger. Thereafter the trigger, of course, will work just like the trigger on a lever-action or single-shot rifle, and as you want it to. Just a little training will teach you to always take up this slack as you place your rifle to your shoulder, and always before you start to aim, and you should continue your practice until you do it naturally, without any special thought. You should also send 10 cents in coin (not stamps) to the Superintendent of Documents, Government Printing Office, Washington, D. C., for a copy of "Training Regulations No. 150-5, Marksmanship, Rifle, Individual—U. S. Army." This is the standard training system used by American riflemen, the best training system in the world, and the only one which will make for practical, nail-driving marksmanship. It gives the principles of good trigger squeeze, which is the whole essence of good shooting. Until you know these methods and assiduously practice them, all the shooting you do is a waste of time. Not only that, but shooting by other methods is absolutely detrimental because it teaches you bad habits, which are very difficult to eradicate, and which absolutely prevent progress until one entirely overcomes them. It is far easier and quicker to train a man who has never fired a rifle before into a first-class shot than it is to try to perfect a man who has done a whole lot of promiscuous shooting, and who has learned a lot of bad habits as to trigger pull and other matters. The fine shot is not the man with the iron nerve or the steady hand, or the keen eyesight, or is it the expert wind-doper. He is the man who has learned how to squeeze the trigger properly.

It is extremely desirable that you learn as quickly as possible how to squeeze a bolt-action trigger properly, because all modern rifles are bolt actions, and because all, for safety, must have this form of trigger. If your trigger has any creep or drag at all after the slack has been taken up, it is of course essential that this be taken out and the trigger properly adjusted the very first thing you do. For this I can only refer you to one of the first-class gunsmiths, or to the chapter in "Amateur Gunsmithing" on the subject.

SLING STRAPS AND SWIVELS FOR SPORTING RIFLES

WILL you please advise me as to mounting or attaching the Springfield sling on Model 54 Winchester rifle, what kind of snaps to use, and where I can buy them. I have a regular leather sling, but I can not use the regular snaps on my rifle.—H. E. K.

Answer (by Colonel Whelen). The Model 1907 gun sling for the Springfield rifle is 1½ inches wide and of quite heavy leather. Besides being too wide for any sling swivels except those used on the Springfield and Krag rifles, it is rather heavy for a light sporting rifle like the Winchester Model 54. About the only way you could attach this gun sling to the Winchester rifle would be to take two of the butt swivels for the Springfield rifle, which you could obtain from the D. C. M., and screw them, one to the butt stock and one to the forearm, first removing the screw-eyes already on the rifle.

There are no snap swivels made for a sling as wide as the Springfield sling. You can obtain from Winchester snap swivels which will snap into the eyes or rings on the Winchester rifle, and a sling for the same about 1 inch wide. But these snap swivels are noisy, they rattle, and they revolve, causing the sling to become all tangled up. And the Winchester sling is a carrying sling only; no good at all as an aid to steady holding of the rifle as taught in modern marksmanship methods.

Most modern gunsmiths who are familiar with the remodeling of military rifles into sporting type can supply you with smaller, lighter, and neater sling swivels, which can be screwed into the forearm and stock of your rifle, and they can also supply you with a first-rate narrow leather combination carrying and shooting sling, about ¾ inch wide, which will fit in these swivels. Some of them can also supply you with the Winchester detachable form of sling swivel which fits a sling ¾ inch wide. This is the type of swivel which I use on most of my sporting rifles. It is noiseless, does not tangle, and is easily detached by pressing a plunger. The gunsmiths obtain the swivels from Winchester, and alter the bases so that they will readily attach to sporting rifles. They were originally made up for the butt swivel of the .30-40 U. S. Model 1895 Winchester musket, now no longer made; but the Winchester company are still supplying these detachable swivels to gunsmiths.

USING SHORTS IN THE 52 WINCHESTER

FOR several years the rifle team of Morris High School has been using a solution of sodium carbonate to clean the rifle. But I find that the sodium carbonate prevents the lead from being removed from the bore. I would like to know if sodium carbonate is the best cleaner, and if not, what is the best?

We use Winchester 52's chambered for the long rifle, but have to use .22 shorts. I would like to know whether the shorts ruin the bore, and if they do what can be done to prevent it?—J. M.

Answer (by Colonel Whelen). An aqueous solution of sodium carbonate is perfectly satisfactory to clean .22-caliber rifles with, but I doubt if the sodium carbonate is really necessary—that is, I think that just plain water will do every bit as well. Push one dry patch straight through the

bore and out the muzzle to remove the bulk of the dirty fouling. Swab the bore with two patches wet with water. Dry the rod, and, using dry, clean flannel patches, swab the bore with about half a dozen quite thoroughly, so as to get bore perfectly clean, dry, and slightly warm from friction. Then swab with a patch saturated with gun grease, or perhaps mercurial ointment. Before firing again run several patches through bore to remove all trace of grease. Always clean not later than the evening of the day on which the rifle was fired. If a .22-caliber rifle, using the older ammunition with the old-style primer, be used, leaving the barrel uncleaned overnight will result in a small case of rust. Four or five repetitions of this slight rusting will completely ruin the bore by pitting it to such extent that it picks up lead very quickly. There is nothing to do with such a barrel but replace it. But a new .22-caliber barrel, cleaned as above, and not allowed to ever stand dirty more than three or four hours, should last in perfect condition and maintain its accuracy for about 150,000 rounds.

When .22-caliber short cartridges are used in a barrel chambered for the .22 long-rifle cartridge, the very best accuracy does not result. As a consequence boys shooting with the short cartridges under these conditions are almost hopelessly handicapped when in competitions with those who use the proper cartridge in the rifle. It is probable that shooting three or four thousand .22-caliber short cartridges through a rifle chambered for the .22 long-rifle cartridge will not do any appreciable harm to the barrel, but a continuous repetition of this to, say, 10,000 rounds, would probably result in gas cutting or erosion of the chamber just in front of the end of the short case, to such an extent as to make the rifle inaccurate with the shorts, and also inaccurate with the long-rifle cartridges, and would enlarge the front of the chamber to such an extent that there would be extraction difficulties when using the .22 long-rifle cartridge.

If your school can not stand the noise and the expense of using the .22 long-rifle cartridge, then I think that the best thing to do when your present barrels reach the stage where they no longer give you satisfactory accuracy is to send the rifles in to the Winchester Repeating Arms Co., and have them fitted with new barrels for the .22 short cartridge. This should then give you excellent results.

SERVICE AUTOMATIC THROWS EMPTY SHELLS INTO SHOOTER'S FACE

AT A recent pistol match, one of the .45 Colt Government Model Automatics threw the empty shells into the shooter's face.

Shall appreciate very much if you will advise me what caused this, and how to correct the trouble.—G. W. S.

Answer (by Major Hatcher). The trouble that you have experienced with the .45 automatic pistol is a common thing and is hard to overcome. This is one of the inherent defects in the Government Model .45.

I often talked to Mr. Browning, designer of this pistol, and he always was able to overcome this defect by changing the shape of the ejector and the hook on the extractor. I have never found anyone else besides Mr. Browning who was able to change this ejector without a good deal of experimenting.

If you can get hold of a couple of ex-

tractors and ejectors, changing them may correct the difficulty.

A GUN FOR CHICKENS AND DUCKS

I AM seriously considering the purchase of a good ejector double.

Most of my shooting has been with a 16. The one I have now is a good shooter, but it doesn't fit, and never did. I can't keep more than one gun around; and while I know there isn't such a thing as an "all-around" gun, I want to hit it pretty close. I figure about a half choke—say 60 per cent pattern in the right, and a full choke left, from 7½ to 7¾ pound in a 12. Where a fellow can have but the one for general shooting, would you recommend the heavier 12, such as the Super-Fox, long-range Smith, etc., in preference to standard weights?

My main reason for departing from the 16 is the lack of variety in the loads. In a good game country I could do very well with the one I have—in fact, I have seen the time when I would have given \$50 for a gun like it. I like the 16 immensely. Properly fitted and balanced it is a wonderful game gun; but I can not see any common sense in carrying 7 pounds in one of them, and paying \$1.10 to \$1.30 for the ammunition, when the 12 can be had for 90 cents to \$1.35.

Everything here is pump and automatic. The Remington 10A fits me fine, but I do not seem to get the hang of that pump handle.

Most of our duck-shooting is on the river, which means long shots in this case, as that creek meanders all over creation. The puddles are all leased. I like to take a whack at jack rabbits, and an occasional cottontail. Some day we will have some pheasant shooting, but not right away. Never tried one. At \$100 each (and costs) they come too near being a leetle too high for plain folks.—C. M. M.

Answer (by Captain Askins). I doubt if anybody in this world or the next needs a gun with 3-1/3-inch drop. I am about standard build myself, and shoot a gun with 14½-stock length, by 2½ by 1½. That gun would not fit you because you are used to more drop; but a gun with 2½-inch drop by 1½ at comb will fit you. That is about what your Remington has, with a stock 14 inches long.

For that Nebraska country the most satisfactory chicken gun that I ever had was modified in both barrels. However, since you get some long-range duck-shooting the second barrel might well be full choke.

You don't need the big Fox and Smith long-range guns. They will confine you to 3-inch shells for the best work, and you would have a lot of trouble in keeping up a supply of ammunition. I'd get the standard gun, 7½ to 7.10, and shoot standard ammunition in it—3¼ drams and 1¼ ounces of No. 6 shot for the chickens and the ducks.

If I were doing the thing for my own use I'd get the thick trap comb, in 1½-inch drop, and then I'd thin down that comb and hollow it out until it gave me the exact line of sight that I wanted. Take a wood rasp and some fine sandpaper and wade right into it. When you get it right it will stay that way. Then put a soft-rubber recoil pad on the butt, which is as good a thing to counteract recoil as getting a gun a half pound or more heavier. You can get two guns from different factories with precisely the same stock measurements, but they won't fit you alike; and the thing to do is to get 'em straight enough and then make 'em fit.

BOND

Straight Line Loading Tool
MODEL C

Will Size Shells Straight and
Seat Bullets True

POWDER MEASURES
SCALES—BULLET MOLDS
SIZER AND LUBRICATORS
COMPONENTS

Send 10c For Latest Catalog on
Hand Loading

MODERN-BOND CORPORATION
613 West 5th Street Wilmington, Delaware

ELEPHANT BUFFALO

SAFARILAND LIMITED
(Late Tarlton, Whitham & Burman)

Nairobi Kenya Colony

**OUTFIT BIG GAME
EXPEDITIONS**

By special appointment to H. R. H.
the Duke of York

Write for pamphlet which gives full
information

RHINO LION

SHOTGUN LOADS

A GREAT many duck-shooters hereabouts are bemoaning the loss of Ballistite and the ounce load. I just went "round and round" with a hunting partner who offered to show me a 92 per cent pattern of 40-gauge from an old Remington pump of 28 grains Ballistite and 1 ounce of 6's. I claimed that was about the end of its rope—40 yards for a killing pattern; and velocity fell off rapidly.

Now, how does Ballistite compare with Oval, and why was it discontinued if it wasn't for the above reasons?

I am going to use a Smith long-range 12—3-inch cases—this week if the greenheads have not all cleared out. This party claims no particular advantage in this arm over ordinary Oval loads, such as Ajax heavies that we have been using in 4's, 5's, and 6's.

Of course, I understand every gun has its idiosyncrasies; but I maintain that the old Ballistite pattern was a chance one and that Oval has Ballistite cheated to death for pattern and range, even though Ballistite may give a greater initial velocity. He says if it is fast at the muzzle it continues so to the end of its effective range. If so why was it discontinued? I have always liked Ballistite myself; but I believe in the testing room and the chronograph and not in the duck-shooter's so-called practical observations. As you undoubtedly know him, he is a great believer in Santa Claus in regard to ammunition. You meet him tomorrow and his favorite brand is no good anymore (like cigars). They are not putting the stuff in it like they used to; and now the "T. N. T. specials" can not be beaten. He'll never use anything else—until he misses a bunch of cans at 50 yards traveling at top speed that looked and still look like they were 30 yards and out for a stroll.

So there it is; and I would much appreciate some first-hand dope on it.—E. W. H.

Answer (by Captain Askins). Ballistite is a good powder, particularly with light loads of shot. It will burn under an ounce of shot where pressures with some powders

New Military RECOIL PADS



Largest Manufacturers of Recoil Pads in the World

For All Sporting and Military Rifles
From your dealer or direct. Mail us paper outline of size and shape of rifle butt stock with name of rifle and we will mail. C. W. O. \$3 or C. O. D.
Send for our free "NO KICK COMING" catalog.
Address Dept. "A"
Pat. Oct. 25, 1925
JOSTAM MFG. CO.
5252 Broadway, Chicago.

NEW FLASHLIGHT—No Batteries!



Complete light weight electric power plant, 6 in., always ready. Runs continuously, with a few turns, every 3 minutes. No batteries to wear out. Guaranteed for one year. Every sportsman should have one. \$10
Mirakel 7X-6oz. Vest Pocket Prism Binoculars \$85
Hensoldt New "Dialyt"—6 x 30 \$58
Zeiss Wide-Angle "Deltrentis"—8 x 30 \$66
Prismite Pocket Binocular—6 x \$16
Pen II Magnifier; 25 power \$1
Pencil Magnifier; 40-50-80 power \$4
Sports Compass Luminous Dial \$2.50
"No-Hide-Fur" Sleeping Bag \$25
SPECIAL: Light weight 5 lbs. 80 in. "Llama" Bag and Cover, complete \$35
Canoe Sponsons—Portable and adjustable, per pair \$12
Write for FREE Catalog "R"

Anthony Fiala, 25 Warren St., N. Y. City

FOR TELESCOPIC SIGHTS MOUNTS AND SPOTTING SCOPES OF PROVEN QUALITY AND RELIABILITY

WRITE

J. W. FECKER
1954 Perryville Avenue
Observatory Station
PITTSBURGH, PA.

As Illustrated



U. S. Army World War
Trench Knives: Model 1917

Triangular Blade with Knobbed or Teeth Guard on Handle which is shaped for fingers. Brand New—without scabbard, \$1.00; with scabbard, \$1.50; prepaid and insured. No New York State orders accepted on Trench Knives. Fine Decoration for Den.
S. BRIDGE, 214 W. 34th St., Dept. A W. No. 6, New York City

would be too low to cleanly burn the powder. However, precisely the same results can be had from du Pont bulk; and that is probably why the du Ponts dropped the Ballistite. Infallible is pretty much the same powder.

The pattern of 92 per cent with one ounce of 6's is an entirely exceptional pattern. At that 92 per cent of one ounce—218 pellets—is 201 shot in the pattern. Take the Oval cartridge; and it contains 300 pellets in its 1 1/2 ounces. Patterns would run 80 per cent in that Smith gun, which should give you a pattern of 240. Taking the average performance with that ounce of shot and the pattern would not run over 75 per cent, which would be a pattern of 164. The difference between 164 and 240 is to be noted.

Velocities as between the Ballistite at an

Genuine Ottway Optical Sights

Both clamp-on and drive-on pattern in case with 4 reticules to choose from—also clearing lens

Price with 1 reticule . . . \$4.00

Extra reticule . . . 1.50

Clearing lens . . . 1.00

JONAS B. OGCLAEND, INC.

U. S. A. DISTRIBUTORS

Dept. 19, 15 Moore Street, New York

CANADIAN REPRESENTATIVE: Fraser Co.,
286 St. James St., Montreal, Canada

SHOOTERS' BOOKS

In Preparation—

Modern Gunsmithing
By Clyde Baker

Pistols and Revolvers and Their Use

By Maj. Julian S. Hatcher

400 pages, 125 illustrations \$3.75 delivered.

Small-Bore Rifle Shooting

By Capt. E. C. Crossman

352 pages, 100 illustrations. \$3.50 delivered.

With Hatcher's Book, \$6.50

Wilderness Hunting and Wildcraft

By Lt. Col. Townsend Whelen

352 pages, 75 illustrations. \$3.75 delivered.

With the Hatcher and Crossman books, \$9.50

Handloading Ammunition

By J. R. Matern

380 pages, 117 illustrations. \$3.00 delivered.

All four of the above volumes, \$12.50 delivered.

Combination prices may be obtained only on orders placed direct with us.

The American Rifle

By Lt. Col. Townsend Whelen

637 pages. \$6.00 delivered.

Descriptive pamphlet sent upon request. We can supply you with any book in print. Make up a list and let us give you a quotation on it.

Small-Arms Technical Publishing Co.

Box 18, Marshallton, Delaware

ounce and the Oval at 1 1/2 ounces will run pretty close together with No. 6 shot; about 975 feet or a little better. Velocities make little difference, after reaching a speed of around a thousand feet, because air has such an effect on small shot and the faster the shot start the harder the wind is to buck. It has never been found advisable to try for an instrumental velocity of more than a thousand feet with No. 6 shot, no matter how light the load. Loads of an ounce of shot used to be common in 10-bores, but they owed their popularity more to the imagination of the shooters than anything else.

FOR KRAGS

Have you got yours yet? Western Aperture Rear Sight is adjustable, no holes to bore, no tools needed; put it on yourself in one minute. Price, \$3. Micrometer adjustment target model, \$6. Descriptive literature on request. Agents wanted.

WESTERN GUN SIGHT CO.
682 24th Ave. San Francisco, Calif.

IMPROVED BULLETS

Remain unsurpassed for extreme accuracy, penetration, and positive game stopping. Covered with heavy non-fouling copper jackets. Mail orders receive our prompt attention.

Western Tool and Copper Works
Station G, Box 57 OAKLAND, CAL.

American Rifleman advertisements get results!

IDEAL

MEASURES POWDER ACCURATELY



The Ideal No. 5 Powder Measure is especially adapted for throwing any number of consecutive charges with weighed accuracy. It will handle HiVel and 1204 powders equally as well as Bull's-eye and similar types of pistol powders. Widely used and endorsed by experienced reloaders, the No. 5 Measure is also recommended by powder manufacturers for the most rapid handling of modern powders. It comes to you boxed complete with either tube, ready for use. \$7.50 for No. 5 size.



The Ideal Handbook is a necessary part of your reloading equipment. Information compiled by three eminent American authorities, Col. Townsend Whelen, Maj. Julian Hatcher, Capt. Chas. Atkins. Sent only on receipt of 50 cents.

We can furnish you everything necessary for reloading singly or in armory moulds. All Ideal Tools are well made and finished.

The Lyman Gun Sight Corp.
90 West Street, Middlefield, Conn., U.S.A.



THE O'HARE MICROMETER

THE world's greatest shooting records made by the U. S. Springfield rifle is largely due to the use of this micrometer. In changing elevations each "click" 1 inch for each 100 yards of range; correct measurements of half inch are also given on this micrometer. Price, \$5.



This Cut shows the P. J. O'Hare Telescope. This Telescope is its own advertiser, will show 22 shots in the black at 100 yards. Price \$12.



This Telescope Stand used slightly in the British Service would cost \$30 new, 32 inch in height. Price \$4. Cut down to 14 inches, price \$5. Special with Telescope, \$3. Complete outfit, \$15.

Send for No. 7 Catalog and Price on Shooting Accessories. Over 200 cuts illustrated.

P. J. O'HARE

552 Irvington Ave., So. Orange, N. J.

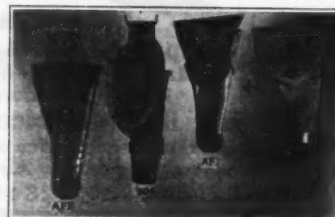
You will be interested in the Stevens Arms Company advertisement on page 44

Savage Arms Corporation
UTICA, NEW YORK

Largest Manufacturer of Sporting Arms in the world

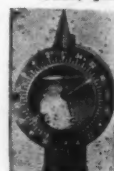
SPECIAL SALE

.45 Colt Automatic Pistol Holsters and Belts



Mills 305 Woven Pistol Holster	1.25
Mills 306 Woven U. S. Army Model Swivel Holster, Leg Strap	2.00
A. F. Leather U. S. Army Model Holster with Rawhide Thong	1.25
A. F. Leather U. S. Army Model Swivel Holster with Leg Strap	2.50
Sporting Leather Holster	1.00
U. S. Army Model Woven Pistol Belt	.75
Leather Cartridge Belt, Good Quality, 18 Loops, 1 1/4 inches Wide	1.25
Leather Cartridge Belt, Fair Quality, 18 Loops, 1 1/4 inches Wide	.75
333 Jeffry Mauser Cartridges, Loaded by Jeffry, per 100	10.00
404 Jeffry Mauser Cartridges, Loaded by Jeffry, per 100	12.00
12-gauge Winchester Loaded Brass Shells, 00 Buck, per 100	5.00

\$24.00 COMPASS FOR \$3.00



U. S. Engineer Department Marching Compass, complete with Focusing Eyepiece, Floating Dial, with Leather Belt Carrying Case. Cost Government \$24.50. Special price, subject to stock on hand, \$3.00, postpaid and insured. Beware of imitations. These Mark VII Model D Compasses are made by Sperry Gyrocompass Co.

All goods sent postpaid upon receipt of price except ammunition. No catalogues.

S. BRIDGE, 214 West 34th Street
New York, N. Y.



MANNLICHER-SCHOENAUER

with special English sights ready for immediate delivery may also be had with rubber barrel, folding peep, or detachable telescope. Sole distributors. Catalog free. SEQUOIA IMPORTING CO., 17 Spear St., San Francisco

G & H Rifle Scope Mount



is lighter, more compact and rigid and more easily and rapidly mounted or dismounted than any other scope mount on the market. Locks by simple lever, adjusted by one screw only. Open iron sights can be used without dismounting the scope, as illustrated on Sporting Springfield. Adapted for any type or caliber of rifle.

Our newly issued De Luxe GUN CATALOGUE, embossed, in natural colors and illustrated by Carl Rungus, America's foremost painter of wild animals, is the finest gun catalogue ever printed. Sent on receipt of 25c. Also 100 page equipment manual catalogue 25c.

GRIFFIN & HOWE, Inc.

RIFLE MAKERS AND OUTFITTERS

234 East 39th Street, New York, N. Y.

5 minutes' walk from Grand Central

U. S. HEADQUARTERS
Imported Arms, Ammunition & Parts
 Mauser - Luger - Merkel Bros. - Mannlicher -
 Fabrique Nationale - Webley - Scott, etc.
Full line American Arms & Ammunition
 Largest stock in America of fine new Rifles, Trap, Field Guns,
 Side Arms, Target and Air Pistols. *Springfields Restocked.*
 EXPERT REPAIRING. 128 page Arms Catalog 25c. Dept. "6-1"
A. F. STOEGER, INC. NEW YORK, N. Y.
 509 Fifth Avenue (at 42nd St.)

Cariboo District of B. C.

Big-game hunting, fishing and summer vacation trips. Spring bear trips, May and June. Fall season opens Sept. 1. Game—moose, caribou, bear, deer, goats, etc. Best grizzly country in Canada. "Cariboo Lodge," our headquarters camp, situated on beautiful Quenel Lake, 200 miles delightful motor trip north of railways, open June 15. Wonderful fishing, scenery, and climate, and good accommodation. We meet you at railway and outfit you completely—auto transportation, guides, cook, food, tents and camping equipment, boats, horses, etc. Largest and best-equipped outfitters in this District. References from sportsmen.

E. S. Knight, Ltd., Ashcroft, B. C.

SEE WHAT \$4.75 WILL DO!—It will buy a year's subscription to *Field and Stream*. It will buy a year's subscription to *THE AMERICAN RIFLEMAN*; and, to American citizens of good standing, the subscription to *THE AMERICAN RIFLEMAN* will also include a year's membership in the National Rifle Association! Where can you get more for your money?

Lyman
Sight
Catalog



and Sight
Chart
10 cents

Include These in Your Camp Perry Equipment

CAMP PERRY assured is good news to the shooters. Make the most of your preliminary and championship matches with the increased accuracy you'll get from Lyman Sights.

A New Sight for the WINCHESTER 52

New No. 48T Lyman Microm. Rec. Sight for popular Win. 52 Target Rifle. Now ready. \$11.50 with disc.



No. 48T

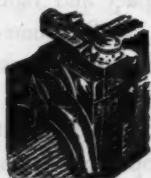
The Lyman 48G is the perfect sight for accurate work with Savage N. R. A. .22-caliber rifle. Rec. tapped and drilled. \$11.50 with disc.



No. 48G



No. 17 front sight designed to use with "48"s.



No. 48 Springfield

Put a Lyman 48 on your Springfield '03 rifle. Also made for Krag, Mauser, Remington, Winchester, B. S. A., etc.

LYMAN SIGHTS

The Lyman Gun Sight Corporation
 90 West St., Middlefield, Conn., U. S. A.

BETTER YOUR AIM



Right down the groove!

Choice of experts in International Matches! Holder of several world's indoor records!—the Stevens "Armory" No. 414 gives you able assistance in any competition. It is designed for firing from standard military positions incorporated in matches of the National Rifle Association.

SPECIFICATIONS

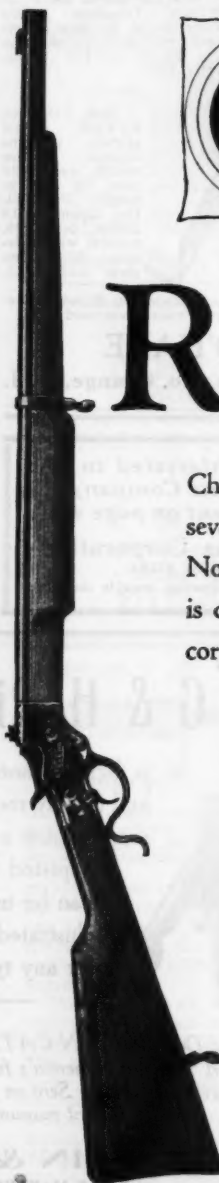
No. 414 "Armory"—Made for .22 l.r. cartridges—also chambered and rifled for .22 shorts on special order. Barrel 26" round. Single shot. Take-down frame. American Walnut Stock. Shotgun butt. Special Stevens receiver peep sight. Weight about 8 lbs. Price \$21.

If you don't know the famous "Armory," it will pay you to get acquainted. And for any other information see any Stevens dealer, or write the

J. STEVENS ARMS COMPANY
 Dept. 633 Chicopee Falls, Mass.

STEVENS

Owned and Operated by Savage Arms Corporation
 Largest manufacturers of Sporting Arms in the world





*"I'll say they are there, with
all the old Winchester de-
pendability and accuracy
and — no rusting now."*

WINCHESTER TRADE MARK **STAYNLESS** **RIM FIRE CARTRIDGES**



will add full measure to the fun and zest of your days in the out of doors. They keep the bore of your rifle clean and free from rust without the drudgery of constant cleaning at the end of every day's shooting. They give you all the old recognized Winchester dependability and shooting qualities plus protection from rusting and pitting—prolonged accuracy—longer barrel life.

When you are shooting Lesmok cartridges insist on Winchester Staynless—Winchester non-corrosive priming and Lesmok powder—a combination that reduces rusting and pitting to the minimum.

Winchester Staynless and Stayn cartridges are now available in a complete line of .22 rim fires.

WINCHESTER REPEATING ARMS CO., New Haven, Conn., U. S. A.

The Arms Chest

READ CAREFULLY BEFORE SENDING ADVERTISEMENTS

THE uniformly excellent returns from advertisements appearing in these columns make them a very satisfactory medium for the disposal of guns and accessories no longer needed, and for the acquisition of similar articles.

Paid Insertions: These are accepted at the rate of 5 cents per word, including name and address of advertiser. No advertisement accepted for less than \$1. Advertisements should be in publication office not later than tenth of month preceding issue in which advertisement is desired to appear. Print advertisement plainly.

Free Insertions: With each year's subscription the subscriber is entitled to one free insertion of not more than twenty words, including name and address of advertiser, any additional words to be paid for at regular rate. Cash must accompany advertisement.



WE ARE NOW ABLE TO SUPPLY BOUND VOLUMES OF "THE AMERICAN RIFLEMAN" FOR THE ENTIRE YEAR 1927 at \$7.50 PER COPY. GET YOURS NOW! ALSO JUNE 1, 1925, TO JUNE 15, 1926, at \$7.50. LAST HALF OF 1926 AT \$5. THE AMERICAN RIFLEMAN.

HUNTER-TRADER-TRAPPER—The largest magazine of its kind in the world. Devoted to hunting, fishing, trapping, camping and every phase of outdoor life. Articles every month by the leading writers in their respective fields. Everything facts, no fiction. Send us \$1 for our special "Get Acquainted" offer, consisting of five back issues and five coming issues as fast as they are off the press. Ten months for \$1. If you have never read H-T-T you are missing something. Send today. Hunter-Trader-Trapper, Subscription Department, Columbus, Ohio.

IMPROVED NON-FOULING COPPER-CASED bullets, are especially designed to give uniformly reliable results when used at high and ultra-high velocities in the modern high-powered cartridges. Inquiries receive courteous attention, and retail orders are promptly filled. Western Tool and Copper Works, Station G, Box 57, Oakland, Calif.

GUNSTOCKS—French or Circassian walnut, sporters from \$2.50, delivered free; quality de luxe from \$5 to \$20. Mitchell Bosly, Ltd., 75 Bath St., Birmingham, England.

OUTDOOR LIFE AND RECREATION combines in a single magazine the most popular features of two great publications—*Outdoor Life* and *Outdoor Recreation*. Published at Denver by John A. McGuire, the new combination is continuing the traditions of *Outdoor Life* and offering an even larger proportion of stories and articles on big game hunting and rifle shooting. The great Gun and Ammunition department edited by Charles Askins will contain features by Colonel Whelan and others of the most trustworthy experts in that field. The new magazine is considerably larger than either of the two publications which have been combined and the increased space is permitting a far wider variety of gun and hunting material in every issue. The price of the new publication is twenty-five cents a copy, \$2.50 a year—the lowest price at which any outdoor magazine of equal size can be secured. As a special get-acquainted offer to readers of THE AMERICAN RIFLEMAN, a trial five issues will be sent for \$1. *Outdoor Life and Recreation*, 1892 Curtis St., Denver, Colo.

WANTED—AMERICAN FIREARMS BEFORE 1876. IF YOU HAVE ANY, ADVISE,
S. HAROLD CROFT,
BALA-CYNWYD, PA.

FOR SALE—Colt Auto. .45-caliber, new barrel, \$20. New 8-power Weiss Prismatic Binoculars, with case, cost \$60; take \$30. **WANT**—22 match rifle. H. Clay Buroker, Sweetser, Ind.

Our limited supply of "THE KENTUCKY RIFLE," by J. G. W. Dillie, a book for every rifleman and firearms collector, is being sold out at the radically reduced price of \$8. **SEND YOUR ORDER IN TODAY! AMERICAN RIFLEMAN.**

P. MACK, GUNMAKER, 3721 Gr. River Ave., Detroit, Mich. All kinds of repairs. Service Station for Remington Arms Co. Restocking of Springfield a specialty.

SEE WHAT \$4.75 WILL DO!—It will buy a year's subscription to *Field and Stream*. It will buy a year's subscription to *THE AMERICAN RIFLEMAN*; and, to American citizens of good standing, the subscription to *THE AMERICAN RIFLEMAN* will also include a year's membership in the National Rifle Association! Where can you get more for your money!

GUNSTOCKS, plain, \$1; fancy, \$1.50; extra fancy, \$5. Sporters, \$1.50, \$3.50, \$6. French and Circassian, \$3 to \$10. Clarence Harner, 1600 Broadway, Springfield, Ohio.

WILL PAY CASH for any type and quantity of cap-and-ball revolvers or pistols in good condition, particularly if in cases with accessories. Write giving description and price. McMurdo Silver, 846 W. Jackson Blvd., Chicago, Ill.

FOR SALE—One of two brand-new Tell or Buchel single-shot .22 rifle actions; hammerless, falling block, all the advantages of Martini but permits cleaning from breech; illustrated in Hatcher and Crossman books; complete with German orthoptic rear sight, \$25. Box 533, THE AMERICAN RIFLEMAN.

WANTED—September (1927) issue of THE AMERICAN RIFLEMAN. G. W. Minich, Yreka, Calif.

SELL—Collection rifles—Ball and Williams, .38-caliber Ballard patent using percussion cap or rim-fire shell, Evans repeater, .44 caliber, \$15 each. Frank Wesson .44 caliber, \$10. All good condition. **WANT**—Cash bargain in Springfield action or receiver. R. Wipprecht, 630 3rd Ave., Salt Lake City.

WANTED—B. S. A. Martini action and rear sight. Must be in good condition. Dr. C. Edward Sayre, Norfolk, Nebr.

FOR SALE—Fecker 6X scope and mounts, \$30; Lyman No. 7 windgauge for Stevens, \$2.50; Lyman No. 48 R, \$8; Winchester No. 52, \$33. Clarence Sherry, Viroqua, Wis.

WANTED—AMERICAN RIFLEMAN from February, 1924, to August, 1925. State price. L. L. Merrill, R. 1, Box 178, Campbell, Calif.

FOR SALE—38 Special and 9-mm. Luger double adjustable tools with mould, per set, \$5. 10-, 12-, 16-, and 20-gauge smokeless loaded shells cheap. Bud Dalrymple, Senie, S. Dak.

WANTED—Krag 28- or 30-inch barrel; must measure .308 groove diameter, perfect inside. Charles Wiseman, North Topeka, Kans.

TRADE—Reising .22 auto., perfect, 3 magazines, holster, for .22 auto. Colt, perfect. J. R. Wark, 281 Euclid Ave., Kenmore, N. Y.

TRADE—8-mm. Sporter with ribbed barrel, fancy stock, with pistol grip like new, cost \$65, for Winchester Model 52 or Springfield Sporter .30-06, Karl Wehinger, South Wayne, Wis.

WANTED—28-gauge double shotgun, .38 Colt single action. Robert W. Knight, 96 State St., Seneca Falls, N. Y.

FOR SALE—30 Winchester, made U. S. Model 1917 rifle, new, \$11; Stevens Favorite with peep-sight, perfect condition, \$7. Charles Roth, 2884 Ash, Denver, Colo.

HANDLOADING AMMUNITION, Mattern's textbook, covering all phases of the reloading of ammunition, 360 pages, 117 illustrations. Voluminous tables of ballistics and 50 pages of loads. Technical discussion covering each popular cartridge. Complete instructions for duplicating factory loads, short-range and small-game loads, big-game cartridges and loads for extreme accuracy. Everything original, no reprinting of catalog dope. Intensely practical. \$3 postpaid. Small Arms Technical Publishing Co., Box 18, Marshallton, Del.

FOR SALE—English War Office field glasses, \$7.95; used genuine Colts, \$14.75; holsters, \$1; exercisers, \$1.20. Free Catalogue. Hudson Sporting Goods, R54 Warren St., New York, N. Y.

TRADE—30-caliber Luger carbine, 12-inch barrel, SA Kodak, for Springfield Sporter with 48 sight. Gordon Brusoe, Rhinelander, Wis.

SALE—Model 03 Winchester auto. rifle, \$20. Trade for Model 56 or 57. John Fuller, 413 Marguerite Ave., Cuyahoga Falls, Ohio.

SELL—45 N. S., 7 1/4-inch, perfect inside, \$17. Heiser No. 72 belt, No. 708 thong-laced holster, carved, \$12. Ideal No. 3 D. A. tool, muzzle-resizer, like new, \$5. Ideal mould 454190, made for above gun, \$3, nicely broken in. 95 Winchester .30-06, shotgun butt, Lyman No. 38 receiver sight, slightly scabbard worn, perfect inside, \$30. Carl Beall, Moran, Wyo.

SALE—Prewar Busch "Terlux" 10X marine binoculars. Cost \$110; will express subject to examination for \$70. V. K. Dodge, 137 Bell Court, West Lexington, Ky.

SELL—TRADE—New Winchester 94, .30-30, shotgun stock, sheared and Lyman sights, case, sixty cartridges, \$30. Trade for Government Springfield Sporter or 54 Winchester .30-06 in like condition. W. F. Preston, 206 Hilton Ave., Catonsville, Md.

WANTED—Bisley Model Colt revolver; must be in new and perfect condition. Describe length of barrel, caliber, whether blue or nickel; price. Describe exact condition. P. O. Box 602, Santa Barbara, Calif.

SALE—16 feet x 16 feet wall tent, like new, \$25. Fred Schweitzer, 3360 Hancock E., Detroit, Mich.

SALE OR TRADE—B. & M. 8X scope and mount, portable typewriter, all A-1 condition. **WANT**—Reloading tools. F. N. Beebeck, Box 8, Woldale, Pa.

FOR SALE—New Winchester 95 carbine, .30-06 Lyman sights, \$35. Marlin .32 special Lyman sight, \$20. Ralph Allard, The Weirs, N. H.

FOR SALE—Colt .38 Army Special, 6-inch, perfect, \$20. Paid powder scales, new, \$5. K. L. Fullerton, 670 Dayton St., Akron, Ohio.

TRADE—Swap 52 Winchester for Savage lever; or what have you! Joseph Doran, 1670 Second Ave., New York, N. Y.

WANT—Model 1917, caliber .45 S. & W. or Colt revolver and ammunition; Krag rifle or carbine and ammunition; .30-06 ammunition. T. W. Hildemann, Frenchtown, Mont.

FOR SALE—94 Model Winchester .32-40, \$15. Newton rifle, .256 caliber, good inside and out, \$35. S. & W. revolver, .38 special, 4-inch, military model, square wood stocks, nickel, new gun, \$24. *Geographic Magazine* from 1917 to 1928. Make offer. No personal checks accepted. J. K. Sheerer, Mat-tawana, Pa.

SALE—One Peabody Martini action and stock, Creedmore P. G. checked. One Krag, new, never fired. J. K. Rich, Cato, N. Y.

WANTED—Rear sight as regularly furnished on Winchester 52. Ross Campbell, 1397 Peabody, Memphis, Tenn.

SELL—New Hensoldt Dyalit binocular, 6 x 26, 12-ounce, cost \$56, for \$40. O. C. Werninghausen, 641 78rd St., Brooklyn, N. Y.

SALE—For best offer, Ithaca "Victory" grade trap, 12 x 32, 1 1/4 x 1 1/4 x 1 1/4, nearly new; also Ithaca double No. 4 12 x 30, 1 1/4 x 2 1/4 x 1 1/4, just overhauled at factory, new pad, triggers, replated, not a spot on it. No trades. W. Stump, Denison, Iowa.

FOR SALE—700 Colt auto. bullets, jacketed, 85 cents per 100. Bond dies for .45 auto., \$4. Springfield carrying case, \$1. J. A. Brown, 333 N. Ave. 61, Los Angeles, Calif.

FOR SALE—New Method .22 long rifle, hand-made target barrels guaranteed to group on 1/4-inch circle at 25 yards; fitted on any action, \$40. Also any caliber relined to .22 long rifle, \$20 up. Finest nickel-steel tubes used. A. Hubalek, 744 Willoughby Ave., Brooklyn, N. Y. 8-28

FOR SALE—Savage auto. pistol, .380 caliber, perfect condition, \$15. Illinois watch, Sangamon Special, 16s, 23j, 14k, green-gold filled case, in factory box, new, \$65. Watchcase, Jan. Boss, R. R. Model, 16s, 14k green-gold filled, new, \$11. **WANT**—October (1927) AMERICAN RIFLEMAN. E. E. Bement, 1026 Ellis St., San Francisco, Calif. 6-28

SALE—Colt .45 S. A. 7 1/2-inch barrel, with holster, \$15. Winchester .25-20, Model 92, \$10. Both serviceable condition. John Wilcox, Bigfork, Mont. 6-28

FOR SALE—Winchester, Remington, Ballard, Peabody, Evans, Sharps, Spencer, Maynard, Colt, Martini, Steyer, Westley Richards, Soper Metford, and other foreign-made bolt-action rifles. G. S. Lewis, 52 Cornell St., Springfield, Mass. 6-28

FOR SALE—Colt Police Special .38, 4-inch barrel, blued, checked walnut stocks, fired 30 times, perfect. Money order for \$20; carriage extra. Alec Gordon, Ambassador Hotel, St. Louis, Mo. 6-28

WANTED—Men, South American work. Fare and expenses paid. Details free. South American Service Bureau, 14600 Alma, Detroit, Mich. 7-28

SELL—Winchester single-shot .32-20 octagon, set trigger, 103 Lyman, Watson No. 2 front, perfect, good as new, \$35. New Lyman 48 sight for 54 Winchester, \$8. 1843 London Colt cap-and-ball, \$36. Barrel 7 1/2-inch curly-maple grip, fine, \$15. Colt .45 New Service Target, new and perfect, holster and belt, \$38. Model 99E Savage .300, factory grease, \$28. H. M. Williams, Punxsutawney, Pa. 6-28

FOR SALE—Stevens Ideal Model 44 1/2 with Swiss butt, double set triggers, palm rest, peepights, just relined by Diller, caliber .22, very accurate, fired 50 shots. F. N. Kessey, Couer d'Alene, Idaho. 6-28

SELL—New .32-20 Savage Sporter, \$16. Winchester .22 automatic, \$8. Colt 41 S. 5 1/2-inch, \$10. Oran Delaney, Greenville, Tex. 6-28

TRADE—Colt .22 auto., perfect bore, excellent outside. **WANT**—Mirakel 7X binocular. **SELL**—B. & M. bolt-sleeve rear and special front for Remington Express, new, \$7.50. E. K. Kempkey, Hobart Bldg., San Francisco, Calif. 6-28

FOR SALE—10,000 .30-06 bullets, \$8 per 1,000. A. J. Spohn, 111 W. Manchester, Inglewood, Calif. 6-28

WANTED—February (1928) RIFLEMAN; first half 1923; Winchester S. S. heavy center-fire preferred. Sell .30-06 cartridges. Howard L. Harris, Box 2, Petersburg, Va. 6-28

TRADE—Violin, value \$25, for Colt .22 or target revolver, .25-3,000 Savage, or 12-gauge gun. Norris Richardson, Hathorne, Mass. 6-28

TRADE—Forty acres sporting property near Winnipeg, Canada, for fine guns, accessories, car; or make offer. Schoebel, 828 14th St., Milwaukee, Wis. 6-28

WANTED—Peterson-Ballards, .22 caliber, barrels not over 1/4 to 1/2 inch in diameter, new condition; also Springfield .22, late model, reasonable. Clarence A. Marsh, Box 1098, Orlando, Fla. 6-28

WANTED—Several barrels from muzzle-loading rifles, 44 inches long or longer. Must be rifled. C. E. Surface, 129 N. Illinois St., Decatur, Ill. 6-28

FOR SALE—Also percussion revolver and several other rarities in firearms. Write, Thad M. Reece, 301 Cameron Ave., Chapel Hill, N. C. 6-28

TRADE—Vion 33X spotting scope and Parker-Hale tripod. **WANT**—B. S. A. Model 12, condition of barrel immaterial, or will pay cash. E. T. Kirk, 414 West 20th St., Cheyenne, Wyo. 6-28

FOR SALE—S. & W. .38 Military, 6-inch, \$20; Winchester 53, Lyman sights .25-20, \$25; both fine. Thos. Gildersleeve, 904 Clark, Ames, Iowa. 6-28

COLLECTORS ATTENTION—Colt percussion revolving Sporting rifle, 40-inch length, barrel marked "Colt's Pt. 1856, Colt, Colt Hartford, Ct. U. S. A." No. 620, .38 caliber, 6 shots, excellent condition, rare, \$100. References. Send want list. F. G. Carnes, Yoskum, Tex. 6-28

FOR SALE—32, 4-barrel Sharps pistol, good condition, very rare, \$20. Joe Sobol, 1517 Larimer, Denver, Colo. 6-28

FOR SALE—Gun-stock-checking tools, \$5 per set includes fine, medium, coarse spacers, V-cutters, Swiss file, flexible straight-edge, full instructions; also make special border tools, \$1.50 each. Money-back guarantee. R. J. Snyder, Pine Castle, Fla. 6-28

FOR SALE—22 Colt target, \$15; 22 Winchester, 90 Model, perfect, \$15; 32-20 Winchester repeater, \$8.50; Marlin .38-40, \$6. Box 3342 Sta. F, Jacksonville, Fla. 6-28

CROSSMAN'S recent book "SMALL-BORE RIFLE SHOOTING" is the most valuable and original work of this nature which has appeared in the past twenty-five years. It will prove of assistance and value to any military or target rifle-shoot and to hunters. Invaluable to the beginner and to the Annual and Club members of the N. R. A. \$3.50 delivered. Small Arms Technical Publishing Co., Box 18, Marshallton, Del. 6-28

FOR SALE—Ideal Bullet Moulds, \$1.50—403149-330, 25728, 515143, 38-306, 30-150B, 424101, 45469, 321232, 358242-125, 412263, 338237-195, 319247, 285227, 30826, 308291, 321297, 257231-11, 25719-73, 40-285D, 257325. Winchester Moulds, \$1.75—32 Smith & Wesson, 32-20, 38-55. Ideal Tool No. 1, \$2.75—32 Smith & Wesson, 32 Short, 32 Long, 35-20 Repeater, 38 Short, 38 L. O. L. Ideal Tool No. 3, \$2.25—32 High Power, 32-15-40, 33 Winchester, 35 Winchester, 40-70 S. S., 405 Winchester. Ideal Tool No. 6, \$4—32 Winchester Special, 25-35 Winchester. Ideal Tool No. 10, \$3.25—6-mm. Lee, 7.65-mm. Mauser, 32 Colt Automatic. Ideal Powder Measure No. 5, factory box, \$6. Ideal Shell Re sizing Tool, \$2—22 High Power, 25-35, 25-36, 32 Winchester Special, 35 Winchester, 38-44, 38-56. Ideal Re-Decappers, \$2.50—40-85, 44 S. & W. R. Ideal Tools, \$2.25—32-20, 38-40. Winchester Tools, \$3—30-30, 30-40 S. R., 303 Savage, 32 Winchester Special, 32 S. & W. Long, 32-20, 38 S. & W., 32 S. & W., 44 Webley, 44-40. Savage Tools, \$3.50—25-35, 303 Savage. Winchester Mould and Tool, \$6 per Set, factory grease—22 Center-Fire, 32 Winchester Special. Most tools are New. Postpaid upon receipt of price. No other sales. Bridge, 214 West 34th Street, New York City. 6-28

SELL—Bisley Colts, 4 1/2-inch .32-20, 38-40, 41, 45 calibers, at \$22.50. Colt .38 automatic pocket model, \$17. New .32-20 Savage Sporter, \$16. Oran Delaney, Greenville, Tex. 6-28

SELL—Lefever .410 double, \$20; good. Marbles Game Getter, 21; perfect. Colt Camp Perry, \$36; new. 25 Automatic engraved, pearl stocks, holster, \$23; perfect. 45 automatic, fair, 550 cartridges, \$36. 45 Army revolver, fair, \$16. Elito outboard motor, twin cylinder, \$95. Johnson single, \$80. **WANT**—Single-action .22 revolver; 28-gauge double; spring trigger tester; Webley-Posbery automatic revolver. Robert W. Knight, 96 State St., Seneca Falls, N. Y. 6-28

PATENT FOR SALE—Outright or on royalty. Krantz's Self-Scoring Rifle Target. The greatest device ever invented for expert target-shooting. Made for all makes of air rifles and .22 firearms. No more monkeying with paper targets or trolleys. All scoring done correctly from the shooter's stand. Tried out by experienced riflemen. For further particulars address Albert J. Krantz, Strasburg, Ohio. 6-28

FOR SALE—1893 Spanish Mauser 7 mm., \$5. Ballard rifle, no stock, \$3. Fiala combination, fine, \$10. Edison record-shaving machine, \$5. All prepaid. W. H. Humanson, W. Wigwam Bay, Minn. 6-28

FOR SALE—22 Ballard No. 6, engraved action. Barrel by Peterson. Round, with scope blocks. Circassian stock and forearm; palm rest. In perfect condition, \$75. 44-40 Marlin octagon barrel, same as new. 32-40 heavy-frame flat mainspring Ziachang barrel, relined and refinished. H. Davison, Yellow Springs, Ohio. 6-28

FOR SALE—Lefever .410 double, new, perfect condition. Complete with case and cleaning rod, \$22. Richard Mendenhall, 517 Lee St., Evanston, Ill. 6-28

SELL—45-90 Winchester, Model 1886, octagon full magazine, good, \$18. Binoculars, 6 x 25, by L. Pitt, fine, \$15. Heavy brown waterproof tarpaulin, 10 x 12 feet, never used, \$8. Obsolete cartridges; list for stamp. Transportation extra. Frank C. Fortner, Big Sandy, Mont. 6-28

FOR SALE—Model 53 Winchester .25-20, \$23. Model 90 Winchester, 32 W. R. F., Lyman sights, \$16. Stevens 44 1/2 action, stock Lyman sight, no barrel, \$8. Leslie Campbell, Box 215, Hollidays Cove, W. Va. 6-28

SELL—Old Remington revolver, marked "E. Remington and Sons, Ilion, New York, U. S. A. Patented Sept. 14, 1858, New Model." .31 caliber, outside good, inside barrel rusted. Gun in working order. Robert W. Knight, 96 State St., Seneca Falls, N. Y. 6-28

FOR SALE—Springfield .22, Lyman sights, scope blocks, sling, completely hand refinished, fine checked stock, new, \$45. Marlin .25-20, Model 1894, with crank outfit, brand new, \$35. 25-jewel Illinois Sangamo, 16 size, with fine Simmons chain, \$50. J. E. Whitman, 1123 Buckeye Ave., Wellsville, Ohio. 6-28

FOR SALE—Smith & Wesson Winchester Model .32-20 revolver, trigger and backstrap fitted, fine pull, Patridge target sights, excellent condition, 6-inch barrel, \$30. First money order takes it. Wayne Alderman, Philipsburg, Pa. 6-28

SALE—Winchester '90 short or long rifle, pistol grip checkered, 14-inch stock, Lyman 1 and 5, new barrel, gun case, \$32; or 38 Officers' Model target Colt. J. Beecher, 263 Columbia Ave., Hampton, Va. 6-28

FOR SALE—16-gauge Darne, St. Etienne hammerless ejector; cost \$200 in France. Light Field Gun. Photo upon request. Roper Repeating Rifle, \$18. Roper Repeating Shotgun with detachable choke, \$20. Both for \$35. 8-mm. Mannlicher, Austrian Army Straight-Full Carbine, \$12. 7.65-mm. Waffenfabrick-Mauser Military Rifle, \$12. 7-mm. Loewe of Berlin Spanish Army Mauser Rifle, pitted, \$9. 22 Pope-Krag, 30-inch barrel, \$25. 22 Winchester 1873 Lever Action, rare, \$35. 303 Long Lee Enfield, special sights, action cover, \$15. 303 Enfield, same as 1917 U. S., except that it uses .303, \$14. 44 Hopkins & Allen Single Shot Rifle, \$9. Hall's Percussion Musket, triangular bayonet, rare, \$15. 30- and 35-caliber Newton Sporters, made at Buffalo, N. Y., \$30 each; new condition. 45 Scharps-Borachardt, \$12. Jos. Golcher Flintlock Kentucky, \$37.50. Gwyn & Campbell Civil War Carbine, \$9. Burnside Civil War Carbine, model without forearm, rare, \$10. Sharps rare Civil War Carbine with slanting breech, set triggers, \$10. Pacific Ballard Action, \$14. 45-90 Winchester, single shot, \$14. W. W. Greener Percussion Shotgun. Christopher Funk, Gold Inlaid Percussion Shotgun. 16-gauge German Automatic Shotgun, by Becker, unusual type, \$25. Joseph Lang, Double-Barrel Breech-Loading Rifle, \$45. 7-mm. Prewar Mauser, by Deutscher-Waffenfabrik, 28-inch, octagon barrel, single trigger, checkered pistol-grip stock, sling swivels, \$38. Waffenfabrick Mauser stock, removed from 7-mm. Sporter, \$10. 450 W. W. Greener Double Hammer Rifle, Reiley of London, \$50. 577 x 12-gauge Double Combination Rifle and Shotgun, \$50. 12-gauge W. W. Greener Double Hammerless, 28-inch choke barrels, like new, \$135. 10 x 50 Carl Zeiss Monocular, prism damaged, serviceable, \$9. 5 x 7 Press Graflex Outfit, sell or trade. Bridge, 214 West 34th St., New York. 6-28

FOR SALE—One very fine new .30-06 International Match heavy Springfield rifle, 28-inch barrel. This rifle has Blade beaver-tail, large pistol-grip stock, adjustable palm rest, double set triggers, and adjustable prong butt plate. I will guarantee this rifle to shoot 10-shot groups 4 inches or under at 325 yards. This is a super-accurate job; weight about 13 pounds. Price, \$150. Lawrence Nusslein, 5209 Conn. Ave., Washington, D. C. 6-28

WANTED—22 Maxim Silencer, screw couplings. State price in first letter. A. A. Hoffman, Colonial Hotel, Washington, D. C. 6-28

FOR SALE—3-inch Bardon Spotting telescope, 40 to 50 power, in new condition, \$100. 32-40 Winchester, No. 4 octagon 30-inch barrel, perfect inside, \$10. Fits Ballard. **WANT**—Winchester 5B telescope sight; also good engraved Ballard action, single or double trigger. A. Hubalek, 744 Willoughby Ave., Brooklyn, N. Y. 6-28

SALE—Krieghoff three-barrel gun, 12-gauge, 30-30, new; also other high-grade guns. B. Boese, 1433 Dayton St., Chicago, Ill. 6-28

SALE—Gunstock blanks from butt logs, dense, tough walnut, \$1 to \$5. Descriptive price list free. John Parkhill, 624 Fourth St. S. W., Rochester, Minn. 6-28

FOR SALE—Ballard-Winchester-Peterson barrel, heavy, like new. 32-40 palm rest, Schuetzen butt plate, double set trigger, \$30. Winchester Schuetzen No. 3, 32-40, reloading tools, Winchester scope blocks, palm rest, new barrel, double set trigger, \$35. B. Lathe, 2303 North 7th St., Clinton, Iowa. 6-28

SELL—TRADE—Parker 10-gauge double-hammer gun, Winchester pump, 12 gauge. **WANT**—06 reloading tools, Mattern's book, Woods sleeping bag, hunting scope. K. P. Rooker, M. S. T. & Co., East Las Vegas, N. Mex. 6-28

SELL ONLY—Remington Express .30-06, factory grease, new Marbles jointed rod brass and bristle brushes, 200 1918 cartridges, \$45; without above extras, \$39.50. Model 1907 Winchester .351, self-loading rifle, sheared gold front sight, two magazines, 100 cartridges, new, perfect condition, \$45. Old Model 52 Winchester, new condition, \$27.50. Fox Sterlingworth 16-gauge, fine condition, \$25. Bausch & Lomb binoculars, 6 x 30, good used condition, \$20. Jas. W. Varner, P. O. Box 281, Scranton, Pa. 6-28

TRADE—250-3,000 Savage lever action, Lyman tang, gold bead, fired 20 times. **WANT**—Springfield sporter. Ed. F. Dunbar, Fallon, Nev. 6-28

FOR SALE—Model 1891 S. & W. Pistol, 22 Long Rifle, 10-inch blued finish, target rubber grips, single-shot model, Marbles gold bead, very good condition, bore only fair, \$25. One ditto but nickel finish and equipped with revolver recess and side flanges, King's ivory sight, \$20. Both excellent for barrel relining. Wayne Alderman, Philipsburg, Pa. 6-28

FOR SALE—22 Hartford automatic pistol, extra magazine, brand new condition, \$18. Stevens-Gould, .22 pistol, 10-inch, fine, \$15.50, holster. C. R. Jeffries, 137 Nevins St., Lancaster, Pa. 6-28

YOU DOPE BAG READERS who follow Colonel Whelen's fine letters should obtain a copy of "WILDERNESS HUNTING AND WILDCRAFT," his latest book. It is entirely different from the usual run of hunting books and is full of Whelen's best dope and experiences. \$3.75 postpaid. Small Arms Technical Publishing Company, Box 18, Marshallton, Del. 6-28

FOR SALE—'95 Model Winchester, .30-06 carbine, with checkered rifle forearm and stock, peep-sights, etc. This rifle has been shot very little, is very accurate, and breeches up tight; ordered from factory for doctor here; used on two goat trips; \$50. Standard Arms Co., .30-caliber pump rifle, peepsights, outside fine, inside like new, \$25. Remington .25-20 carbine, peepsights, like new, \$20. Colt Single-Action Army, blue 5½-inch, genuine Colt ivory stocks in .38 Colt and S. & W. Special caliber, a new caliber in this model, in factory grease and box, \$46. Fecker 6-power target scope and mounts, flat-top post, and horizontal fine wire reticule, \$30. 4-year-old male pointer, fine, in field except retrieving, \$25. Lyman 48 for Springfield, \$8. Bausch & Lomb 6-power Victory binoculars, cost about \$58, for \$35. Parker 20, double, like new, apparently a prewar, \$40. Other guns. Will trade on some of above. If you fish, I make up a lake trolling spoon that is very successful, at \$1 each, postpaid. When you take a trip out West on the Yellowstone trail, drop in. We kill deer here legally in November, but the other eleven months are just about as tough on them in the store. Also Remington Pump, .32 caliber, peepsights, like new, \$35. Kessey's Gun and Tackle Shop, Coeur d'Alene, Idaho. 6-28

TRADE—German Army Rifle, 8 mm., first-class shape, cut down to sporting stock, gun used in World War. **WANT**—30-06 Remington Express. Earle Montgomery, Ferdig, Mont. 6-28

FOR SALE—Have like new Remington 20 pump, Browning 12 auto., S. & W. .32 hand ejector, Colt .32, 20 Special, Smokeless .40-72 cartridges. **WANT**—Browning 16 auto., Ithaca No. 2, new Model 12, double, S. & W. .44-40 break-open, Maxim silencer for .410 shotgun. A. R. Welker, 406 N. Harvey, Oak Park, Ill. 7-28

FOR SALE—Four new Stereopticons, complete, \$30 each; fine for home or advertising; will sell or trade for double guns. Dr. Yorks, 6865 Hobart Ave., Chicago, Ill. 6-28

FOR SALE—Sporting Stocks, and inletted blanks for Springfield, Krag and other bolt rifles. Unfinished stocks from \$20 to \$30. Blanks of finest American, French and Circassian from \$12 to \$25, fully inletted for barrel and action. Finest yew staves for bows, \$3 to \$10. R. D. Tait, Danmsuir, Calif. 6-28

FOR SALE—Winchester-Schuetzen .22 Short, 33 barrel only. Thirty-inch octagon, takedown and parts, no rear slot, scope tapped by Pope, factory new, \$10. Claude Roderick, Monett, Mo. 6-28

WANTED—Krag and .30-06 cartridges; also Springfield rifle. **SELL**—Remington automatic shotgun, fine, \$30. .38-40 Winchester, fine, \$12. D. O. Amstutz, Ransom, Kans. 6-28

SALE—38 S. & W. Special 4-inch barrel, round butt, factory condition, \$29.50. Bond mould, .25-20 caliber, \$4.25. Harry Jensen, Gilman, Ill. 6-28

FOR SALE—Winchester 5A scope, with top and side mounts, condition like new, price, \$25. Weiss Binoculars, 7-power, \$15. Case .30-06 ammunition, U. S. make, 1918, price, \$20. **WANTED**—B. & M. 3X scope for Springfield Sporter. W. C. Davidson, 320 Donner Rd., N. Canton, Ohio. 6-28

FOR SALE—Ithaca Model 26, right improved cylinder, left full choke, 12-gauge, 26-inch barrels. Marbles sights, Hawkins recoil pad, weight 6½ pounds, very fine, with canvas case, \$30. First money order takes it. Wayne Alderman, Philipsburg, Pa. 6-28

TRADE—Practically new Colt Woodsman for Colt .45 automatic. State particulars when writing. Paul B. Terry, Mehoopany, Pa. 6-28

FOR SALE OR TRADE—25 Remington Express, Model 30, perfect condition. H. D. Decker, Plasaterco, Va. 6-28

WANTED—30-06 Krag and Russian 7.62 cartridges, by case. Also .22 pistol, .45 auto. Chas. H. Miller, Ransom, Kans. 6-28

FOR SALE—Collection rare rifles and pistols. Send for list. Elmer Boles, R. R. 2, Box 15B, Merced, Calif. 6-28

TRADE—Drafting course and complete drawing outfit. **WANT**—22 L. R. Winchester, Model 90, or Savage, Model 25. **SELL**—Blueprints for a real gun cabinet, \$1. L. Ford Osgood, 305 E. Chestnut St., Lisbon, Ohio. 6-28

FOR SALE—405 Winchester, Model '95, solid frame, Lyman receiver rear, gold-head front, brand-new condition, 10 boxes Western Lubaloy soft-point, \$50. .401 Winchester automatic, Marbles gold-head front, folding-leaf rear, Jostam recoil pad, fine condition, \$30. 7.62-mm. Winchester, Model '95 match rifle, Krag stock, new condition, \$30. 10-gauge Parker, double, Damascus barrels, hammer, good condition, \$20. Winchester, Model '95, takedown, .30 Government Lyman receiver sight, brand new condition, \$35. Remington pump 12, factory grease, \$39. Jim Frakes, Amsterdam, Mo. 6-28

WANTED—Perfect flat-top Bissley adjustable sights, complete frames, hammers, triggers. Complete details first letter. L. Roitz, Malverne, N. Y. 6-28

WANT—Perfect Schuetzen, nice Kentucky. **EXCHANGE**—Rare antique arms for same. Send for list. H. R. Lunn, Ithaca, N. Y. 6-28

FOR SALE—Winchester 12, 20-gauge trap, 28 full. L. C. Smith 20 field, 28 full, ejector Krag Carbine. Walter Wellman, 61 Marathon Ave., Dayton, Ohio. 6-28

WANTED—Springfield Rifles Model 1903; condition immaterial. Homer E. Carrico, P. O. Box 192, Dallas Tex. 6-28

FOR SALE—12-gauge Ithaca double field grad 30-inch, full choke and improved cylinder, good condition, with canvas case, \$25. Winchester 1897, 16-gauge pump 26-inch, full choke, oil finish, checkered, rubber butt, good condition with leather case, \$40. J. M. Hilborn, 15 East 26th St., New York, N. Y. 6-28

SALE—Bausch & Lomb 6x30 Military Binoculars, leather case, \$21.50. **WANT**—45 Colt attachment for B. & M. tool. Hugo von Linden, Schoharie, N. Y. 6-28

WANTED—Remington double .41. Colt .45 1917, good, cheap. Lewis B. Richardson, Box 5, Trafalgar, Ind. 6-28

SALE OR TRADE—Flute, new, eight keys, tuning slide; trade for gun or revolver. E. E. Harrill, Ellenboro, N. C. 6-28

FOR SALE—One .30-06 Hartman Martini free rifle, with adjustable stock, in very good condition, \$100. One new .30-06, 28-inch barrel, heavy Springfield, \$75. Larry Nusslein, 5209 Conn. Ave., Washington, D. C. 6-28

FOR SALE—Colt revolvers rebored for shot and round ball, kill game up to 75 feet, \$15 to \$25. Bud Dalrymple, gunsmith, Scenic, S. Dak. 6-28

FOR SALE—22 Colt Woodsman, new condition, \$22. 22 Colt Police Positive Target in Chamoise-lined Box Case, 22 W. R. F., \$20, new condition. 9-mm. Mauser Pistol and Carbine, excellent, with Holster stock, \$27. 45 Smith & Wesson Schofield, fine, \$19. 41 Colt Derringer No. 2, good, \$14. 44 Starr Percussion, good, \$9. 44 Remington Percussion, excellent, \$10. 36 Colt Percussion, good, \$12. 31 Colt Percussion, fine, \$11. 38 Colt Lightning Revolver, nickel, \$11. 22 Single-Action Colt, 2¼-inch land, good, \$12. 22 Single-Action Marlin, engraved, nickel ivory grips, fine, \$14. 32 Palm Protector, \$8. 25 Browning, like new, \$10. 30 Ruger Safety Grip Carbine, 12½-inch barrel, stock, excellent, \$35. 38 Colt Police Positive Special, 6-inch, fine, \$14. 38 Marlin 9¼-inch land, nickel, fine, \$9. 45 Colt Single Action, 5½-inch, good, not discarded Army junk, \$16. 36 E. Whitney Percussion, excellent, \$14. 44 Percussion Colt, cut for shoulder stock, new condition, \$23. 32 Smith & Wesson Rim Fire, 6-inch, patented 1860, almost new, \$16. 44-40 Colt Double Action, Rod Ejector, 7½-inch, \$14. 44 Smith & Wesson, Prewar, encaused ejector, 4¾-inch, fine, \$37. New Yorkers must send permit with coupon. Every gun guaranteed to be in shooting condition or money refunded. S. Bridge, 214 West 34th St., New York City. 6-28

FOR SALE—U. S. Sporting Springfield and 22 Springfield M1. Alfred A. Brooks, Wellsville, N. Y. 6-28

FOR SALE—Officers' Model, 6-inch Patridge sights, practically new, perfect, \$28. L. C. Turner, 713 East Powell Ave., Fort Worth, Tex. 6-28

FOR SALE—Peterson-Ballard, 28-inch, telescope bases, sling, Lyman 48 rear and aperture front, little used, perfect condition, \$50. Peterson-Ballard, 28-inch telescope bases, Winchester vernier peep and windgauge front sight, set triggers, sling, offhand butt with cheekpiece and curved plate, finish considerably worn, lock and barrel perfect, \$35. Winchester, 5A scope, No. 2 mounts, picket reticule, Marine model leather protector, \$15. Spotting scope, 4-draw, 2-inch objective, heavy leather case, new condition, \$12. R. V. Reynolds, 930 F St. N. W., Washington, D. C. 6-28

WANTED—Service type automatic pistol. Must be good and priced right. Leonard E. Sherry, R. R. 10, Muncie, Ind. 6-28

SELL—Sharps and Ballard cartridges; several sizes. Stevens .25-25 and .22-15-60, Hall's breech-loading percussion rifle, 1832, almost factory condition. E. E. Robinson, San Bruno, Calif. 6-28

FOR SALE—Ideal D. A. tool, .250 Savage, muzzle resizer and bullet mould, \$6. William Tompkins, Cooks Falls, N. Y. 6-28

FOR SALE ONLY—Springfield .22 with about 6-power scope, \$50; the rifle without scope, \$35; .22 target pistol, \$8. Burnham, Petersburg, N. Y. 6-28

FOR SALE—Ferro boat motor, \$30. Bausch & Lomb binoculars, \$30. American Kamook No. 4. Harry W. Miers, D. D. S., Schoharie, N. Y. 6-28

FOR SALE OR TRADE—Russian rifle, never fired, walnut blank, two boxes soft-point cartridges. Write A. J. Flowers, Pharr, Tex. 6-28

SALE—New 3-barrel Greener patent 2-12's, .30-30, \$100. Also .22 L. R. S. S. Winchester. E. A. Hatton, Del Rio, Tex. 7-28

SALE—22 lever Marlin repeater, Lyman Nos. 1A and 5 sights, oiled stock, \$10. Springfield bullets per 100, as cast; 169-grain Squibb gas check, 75 cents, sized \$1.05; 103-grain plain base, 45 cents, sized 55 cents. Free samples. Caliber .30 B. & M. bullet-sizer without base, \$1.75. **WANTED**—Springfield service cartridges. State price, make and condition. E. M. Hoskinson, Lincoln, Nebr. 6-28

WANTED—Stevens, Model Ideal Schuetzen Jr. No. 52 double set trigger. State price and condition. Everett J. Tracy, Pomeroy, Ohio. 6-28

FOR SALE—Three choice .22-caliber Peterson rifles, from \$50 to \$65 each. Fred N. Anderson, 239 Main St., Hackensack, N. J. 6-28

FOR SALE—Stevens Diamond Model, .22 pistol, 6-inch, new condition, holster, \$12. "Offhand" Model, .22 pistol, 8-inch, fine, holster, \$9. 44 Remington C. & B., fine, \$10. Manhattans C. & B. .36-caliber, 6-inch, fine, \$9. 45-70 Springfield carbine, like new, \$8. 45-125 Winchester Express mould, fine, \$9. 38-caliber mould, no handle, new, 75 cents. 1 side 8-power German fieldglass (pocket glass), \$3.50. 200 .38 Long Colt primer cases, new Peters, \$1.25. Claude R. Jeffries, 137 Nevins St., Lancaster, Pa. 6-28

TRADE—Case .30-06 cartridges for Colt Woodsman or N. S. 45. W. L. Cain, Gowanda, N. Y. 6-28

FOR SALE—3-barrel gun, Model 1860 Henry, .44-40 Winchester, .38-40 Winchester, .45-70 Marlin, Model 20 Marlin, Lever-Action, .22 Marlin, 12-Gauge Lever-Action Winchester Repeater, 12 Remington, 22 Colt Police Positive, with holster; Fly rod, Rainbow reel, old-time guns, fishing tackle, etc. **WANTED**—50-caliber Remington pistol, .44 Remington, Rogers & Spencer, and Pinfire Revolvers. A. W. English, Portage, Wis. 6-28

SPRINGFIELDS REMODELED and trap stocks made at reasonable prices; also fine checking and bluing. F. Salisbury, 931 Linden Ave., Waukegan, Ill. 6-28

FOR SALE—AMMUNITION—25,000 rounds .30-06 U. S. ammunition packed 25 in cartons, 1,000 per case, \$15 per case f. o. b. San Diego, Calif. S. H. Perlmutter, 656 20th St., San Diego, Calif. 6-28

WANTED—45 or .44-40 S. A. Colt 7½ in., with poor barrel; buy for cash, or trade in on gunsmithing, guns or parts. State your wants. Clyde Baker, 2100 E. 59th St., Kansas City, Mo. 6-28

TRAVEL FREE

Work with oil, fruit, rubber, railway firms romantic South America offers chance to travel free. Good pay. Expenses paid. Position list sent free. South American Service Bureau, 14,600 Alma, Detroit, Mich.


NEW 2½X SCOPE

"THE HUNTER"

A fixed scope in rigid mountings sighted in by the maker—no adjustments—no projections—no springs.

Light Weight	Large Field
Smooth Outline	Great Illumination
Low on Gun	Lower Total Cost

Belding & Mull, Inc., 829 Osceola Road, Phillipsburg, Pa.



Hoppe's
for guns

FAMOUS for keeping gun bores like new—Hoppe's No. 9. Use it always, no matter what ammunition you shoot. Hoppe's Lubricating Oil for the working parts—for fishing reels, all light mechanisms. Pure oil, acid free. Light, penetrating, yet high viscosity. Never gums. Excellent for cleaning and polishing. Ask your dealer. If offered substitutes, please write us.

Send 10c in stamps for sample of No. 9. 2321 N. 8th Street, Philadelphia, Pa.



SELF-CLEANING CENTER FIRES.. *Too!*

U.S. Self-Cleaning Cartridges now include not only .22 rim-fires, such as Short, Long, Long Rifle, Winchester and Winchester Auto., but also the popular center-fire smokeless cartridges as well.

The center-fire self-cleaning group covers pistol and revolver cartridges, including those in general use by police

departments, and rifle cartridges which are in demand for game and target shooting.

By using U. S. Self-Cleaning Cartridges you have the assurance that the bore of your pistol, revolver or rifle will remain "Clean as a Whistle".

Further, that all-important factor—accuracy—is maintained to a high degree.

UNITED STATES CARTRIDGE CO.
111 Broadway New York, N. Y.



SELF-CLEANING CARTRIDGES





In at the Death

THE triumphs of the United States Navy have been legion.

But probably no hearts under the blue fluttered with greater pride than did those of the officers and men of the American Battleship Force who were "in at the death" of the German High-Seas Fleet on November 21, 1918.

Occupying a position of honor with the British Grand Fleet, the American warships awaited on that memorable day at a rendezvous about 40 miles east of May Island, which guards the Firth of Forth.

Then began the procession of victory. One after one, the German ships passed between the column of American and British vessels and steamed sorrowfully to the place of internment where, at sundown, their colors were lowered, never to be raised again.

E. I. DU PONT DE NEMOURS & CO., Inc.
Wilmington, Delaware



Du Pont Powder has been inseparably connected with the combat history of every organization in the Service. In 1802, practically all du Pont Powder was made for military purposes. Today, 98% is produced for industrial uses.



V
e
e

U
N
C
E